JVC

SERVICE MANUAL

REAR PROJECTION TELEVISION

AV-48WP74/HA,
AV-56WP74/HA

BASIC CHASSIS
SB3

TABLE OF CONTENTS

No.52105
2003/4

SPECIFICATION

Items	Contents	
	AV-48WP74	**AV-56WP74**
Dimensions (W x H x D)	120.0cm x 124.4cm x 60.9cm (47 1/4" x 49" x 24")	136.8cm x 138.6cm x 66.7cm (53 7/8" x 54 5/8" x 26 3/8")
Mass	81kg (179 lbs)	95kg (209 lbs)
TV RF System Color System Sound System	CCIR (M) NTSC BTSC System (Multi Channel Sound)	
TV Receiving Channels and Frequency VL Band VH Band UHF Band	 (02~06) 54MHz~88MHz (07~13) 174MHz~216MHz (14~69) 470MHz~806MHz	
CATV Receiving Channels and Frequency Low Band High Band Mid Band Super Band Hyper Band Ultra Band Sub Mid Band	54MHz~804MHz (02~06, A-8) by (02~06 & 01) (07~13) by (07~13) (A~1) by (14~22) (J~W) by (23~36) (W+1~W+28) by (37~64) (W+29~W+84) by (65~125) (A8, A4~A1) by (01, 96~99)	
TV/CATV Total Channel	180 Channels	
Antenna Terminal (VHF/UHF)	75ohm unbalanced F-type connector	
Intermediate Frequency Video IF Carrier Sound IF Carrier	 45.75MHz 41.25MHz (4.5MHz)	
Color Sub Carrier	3.58MHz	
Power Input Power Consumption	120V AC, 60Hz 248W (Max)	
Screen	Transparent screen (unitized fresnel lens/double lenticular lens)	
Screen Size	48" (122cm) Measured diagonally, 16:9 ratio (W:106.3 cm x H:59.8 cm)	56" (142cm) Measured diagonally, 16:9 ratio (W:124 cm x H:69.8 cm)
Projection Tube High Voltage	17cm (6.7") tube x 3 (R/G/B) 31kV±1.0kV (at zero beam current)	
Speaker Audio Power Output	16cm round x 2 (Woofer), 5.5cm round x 2 (Tweeter) 10W+10W	
External Input Video Input Audio Input S-Video Component Input	 1V (p-p), 75ohm (RCA pin jack x 4) 500mV(rms) (-4dBs), high impedance (RCA pin jack x 8) Y: 1V (p-p) positive, 75ohm negative sync provided C: 0.286V(p-p) (burst signal) Mini-DIN 4pin connector x 2 Y: 1V (p-p), 75ohm (RCA pin jack x 2) Pb: ±0.35V(p-p), 75ohm (RCA pin jack x 2) Pr: ±0.35V(p-p), 75ohm (RCA pin jack x 2) 1080i DTV (digital broadcast) ready	
Digital Input Audio Input	DVI-D signal link 19pin connector (Digital-input terminal is not compatible with computer signal) 500mV(rms) (-4dBs), high impedance (RCA pin jack x 2)	
Subwoofer Output	More than 0 to 1000mV (rms) (+2.2dBs) (RCA pin jack x1)	
Audio Output (VARI/FIX)	VARI : More than 0 to 1000mV (rms) (+2.2dBs) FIX : 500mV(rms) (-4dBs), low impedance (1kHz when modulated 100%) (RCA pin jack x 2)	
Speaker Input	45W 16ohm (maximum input)	
AV Compulink III	Ø3.5mm mini jack	
Remote Control Unit	RM-C1200G (AA/R6/UM-3 battery x 2)	

Design & specifications are subject to change without notice.

SECTION 1
PRECAUTIONS

1.1 SAFETY PRECAUTIONS

(1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

(2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

(3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

(4) **Use isolation transformer when hot chassis.**
The chassis and any sub-chassis contained in some products are connected to one side of the AC power line. An isolation transformer of adequate capacity should be inserted between the product and the AC power supply point while performing any service on some products when the HOT chassis is exposed.

(5) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED(NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.
If above note will not be kept, a fuse or any parts will be broken.

(6) The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.

(7) If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).

(8) Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.

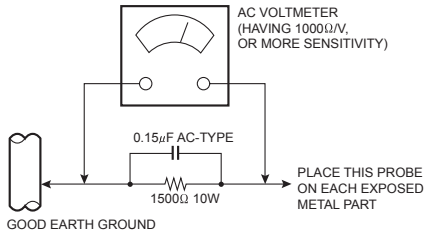
(9) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

(10) **Isolation Check**
(Safety for Electrical Shock Hazard) After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

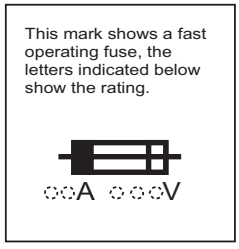
a) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 1100V AC (r.m.s.) for a period of one second.
(. . . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
This method of test requires test equipment not generally found in the service trade.

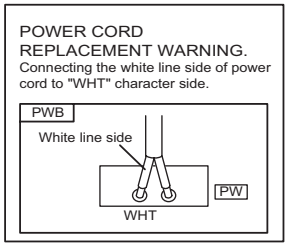
b) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.). However, in tropical area, this must not exceed 0.2mA AC (r.m.s).

- **Alternate Check Method**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500ohm 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



(11) **High voltage hold down circuit check.**
After repair of the high voltage hold down circuit, this circuit shall be checked to operate correctly.
See item **"How to check the high voltage hold down circuit"**.





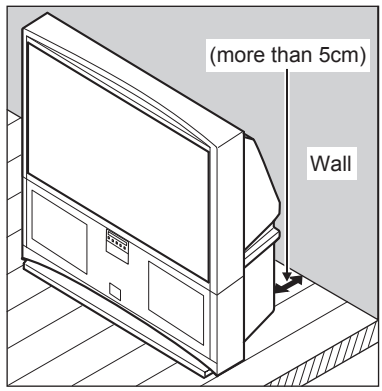
1.2 INSTALLATION

1.2.1 INSTALLATION SITE

(1) The rear of this set is provided with ventilation openings. Install the set more than 5 cm from a wall and in a location with good ventilation.

(2) Avoid the following types of locations.

a) Unstable locations (location must be able to withstand heavy weight).
b) Locations subjected to direct sunlight.
c) Near stoves or other heating devices.
d) Locations subjected to humidity or oily smoke.
e) Dusty locations.
f) Locations with strong vibration.



VENTILATION OPENING

1.2.2 INSTALLATION ADJUSTMENT

When installing, moving or changing the orientation of the set, perform static convergence adjustment according to the following procedure.

Adjusting CRT color convergence have two method, AUTO, MANUAL and RESET. It adjust on the MENU screen.

NOTE :

Please have you TV on for at least 20 minutes before sing this feature.

This adjustment will be needed only when the colors of the characters/lines are separated and lack in distinction. If not, please don't perform the adjustment.

AUTO

(1) Press the [MENU] key, and select the "CONVERGENCE" in the INITIAL SETUP menu with the [function up/down] key.
(2) Press the [function left/right] key, then CONVERGENCE menu appear.
(3) Press the [function up/down] key, and select the "AUTO".
(4) Press the [function left/right] key.
(5) he convergence adjustment will start. It will take about 50 seconds.

MANUAL

(1) Press the [MENU] key, and select the "CONVERGENCE" in the INITIAL SETUP menu with [function up/down] key.
(2) Press the [function left/right] key, the CONVERGENCE menu appears.
(3) Press the [function up/down] key, and select the "MANUAL".
(4) Press the [function left/right] key, then CONVERGENCE adjustment screen appear. [Fig.1]
- If all the crosses are white, no convergence adjustment is needed.

(5) Select the location you want to adjust by using the [number (2/4/5/6/8)] keys on the remote control unit. [Fig.2]
(6) Press the [SELECT] key to change the color of the box to the color of the cross you want to adjust (red or blue).
- You cannot adjust the green cross.

(7) Use the [function up/down] key and the [function left/right] keys to adjust the position of the cross.
(8) Adjust the three colors crosses until they overlap and appear as a single white cross.
(9) Press the [OK] key.

NOTE :

- When you adjust the convergence, make sure you start with the center position (position 5), and work your way around radial for best results
- When you make the adjustment in the center (positions 5), you are making the adjustment for the whale screen. In other positions, you are making the adjustment only in that area.
- You can reset the adjustment if you do not like the results, See below.
- If you perform AUTO CONVERGENCE after performing MANUAL CONVERGENCE, your manual convergence you performed will be cancelled.

(10) Press the [MENU] key to end the convergence adjustment procedure.

RESET

RESET in the CONVERGENCE menu resets all convergence adjustments to the factory default setting.

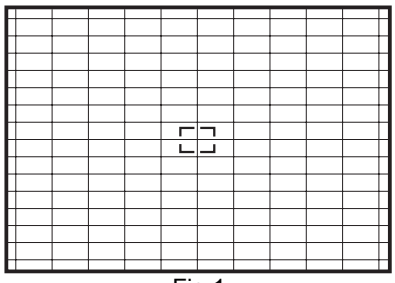


Fig.1

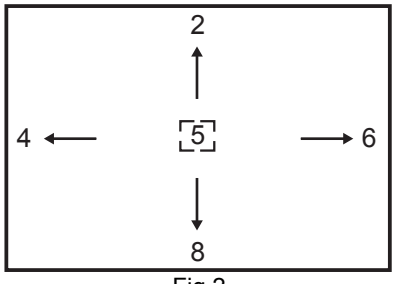


Fig.2

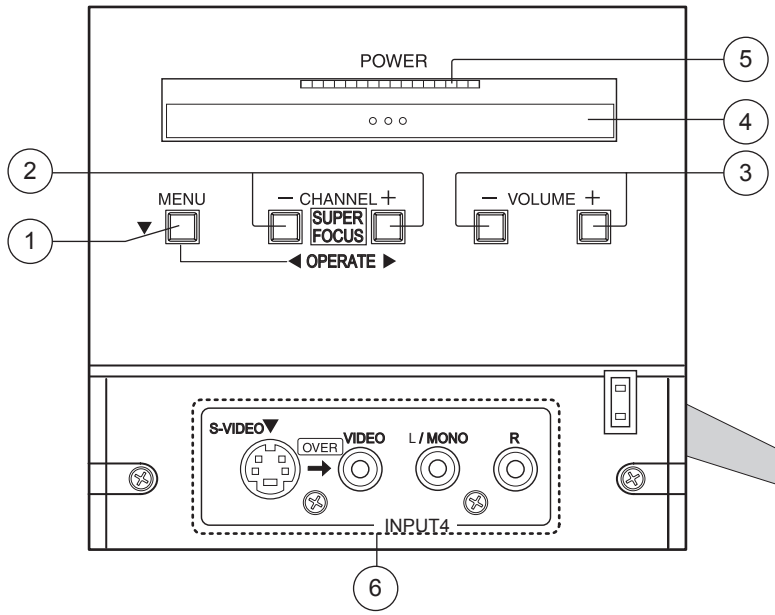
SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

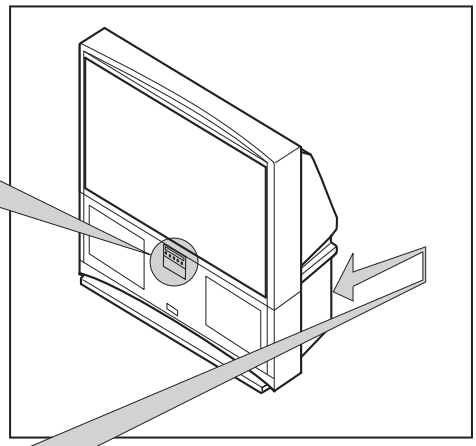
2.1 FEATURES

- New chassis design enable use of an interactive on screen control.
- 2-3 PULL DOWN : You can enjoy DVD movies at the highest picture quality.
- MOTION COMPENSATION : With this function, the seamless reproduction of dynamic motion on the screen has been realized.
- Bullet-in DSD (Digital Supper Detail) circuit and 3 dimension Y/C separate circuit.
- Receive DTV broadcast (1080i / 720p / 480p / 480i)
- Built-in HDCP / Component (Y / Pb / Pr) input.
- Built-in Hyper Sound, BBE circuit.

2.2 FUNCTIONS

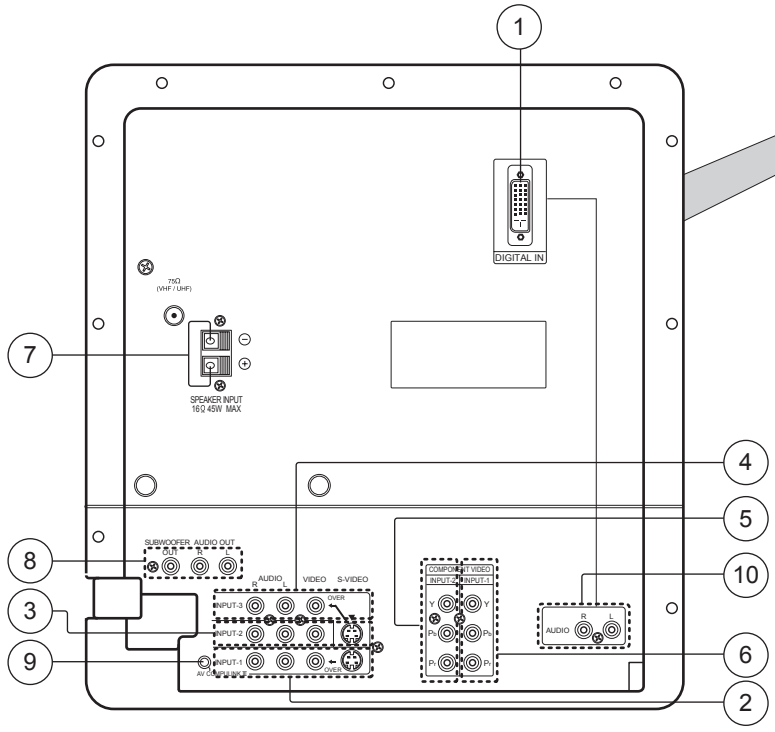
FRONT CONTROL KEY & TERMINAL





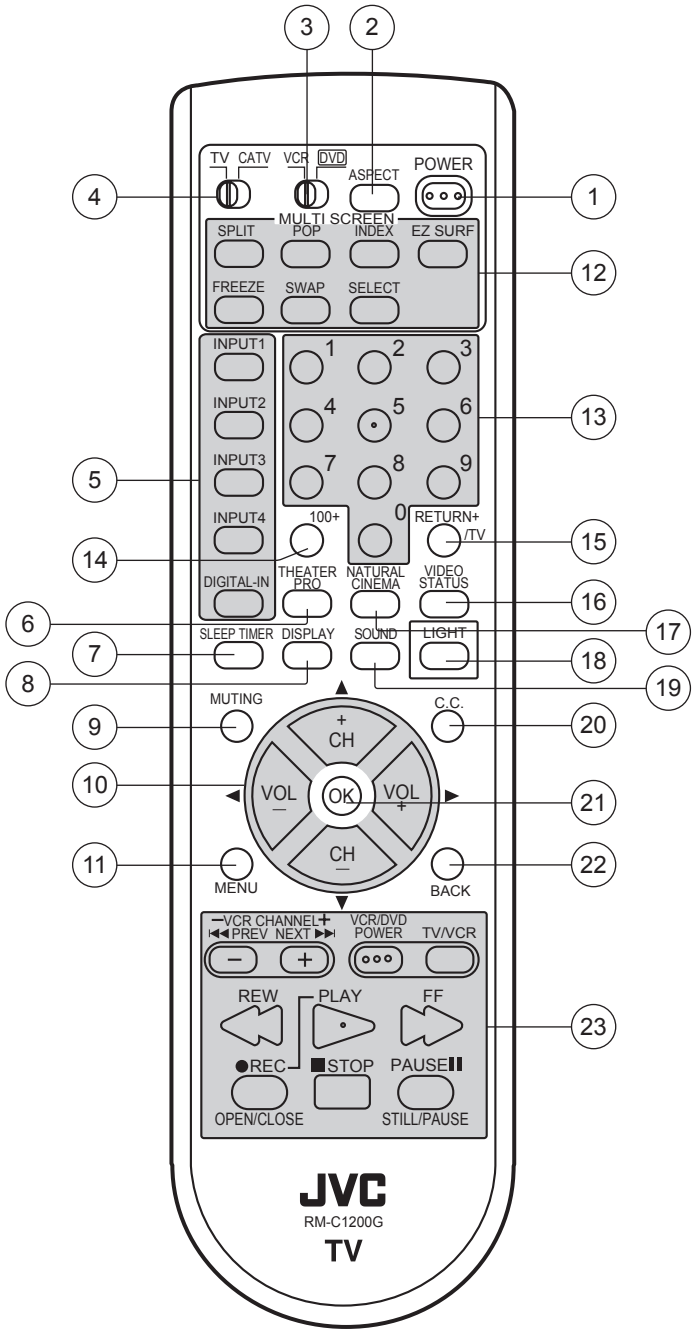
1. MENU Button (OPERATE ▼)
2. CHANNERL -/+ Button (OPERATE ◀/▶)
3. VOLUME -/+ Button
4. MAIN POWER Button
5. POWER LED (Blue)
6. INPUT4
   (AUDIO / VIDEO / S-VIDEO)

REAR TERMINAL



1. DIGITAL IN
   (DVI-D Signal Link 19pin)
2. INPUT 1
   (AUDIO / VIDEO / S-VIDEO)
3. INPUT 2
   (AUDIO / VIDEO / S-VIDEO)
4. INPUT 3
   (AUDIO / VIDEO)
5. COMPONENT VIDEO INPUT 1
   (Y / Pb / Pr)
6. COMPONENT VIDEO INPUT 2
   (Y / Pb / Pr)
7. SPEAKER INPUT
8. SUBWOOFER / AUDIO OUT
9. AV COMPULINK Ⅲ
10. AUDIO INPUT (For DIGITAL IN)

REMOTE CONTROL UNIT [RM-C1200G]

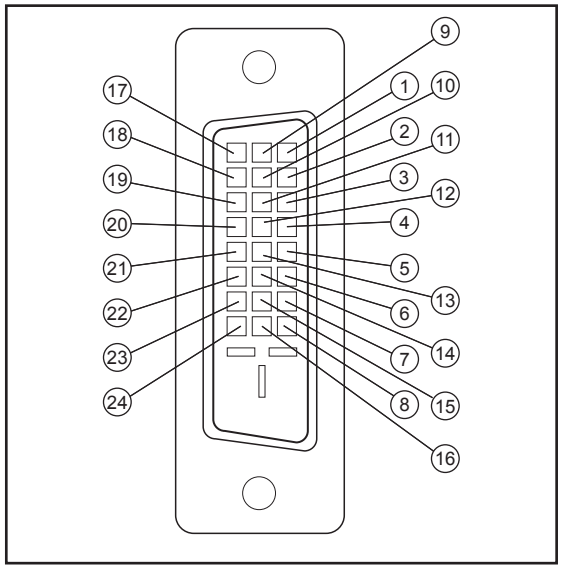


①	POWER Key
②	ASPECT Key
③	VCR / DVD Switch
④	TV / CATV Switch
⑤	Input select Keys
⑥	THEATER PRO Key
⑦	SLEEP TIMER Key
⑧	DISPLAY Key
⑨	MUTING Key (memory Key)
⑩	Function up / down / right / left Keys (CH + / CH - / VOL + / VOL - Keys)
⑪	MENU Key
⑫	MULTI SCREEN operation Keys
⑬	Number (1~0)Keys
⑭	100+ Key
⑮	RETURN+ / TV Key
⑯	VIDEO STATUS Key
⑰	NATURAL CINEMA Key
⑱	LIGHT Key
⑲	SOUND Key
⑳	C.C.(Closed Caption) Key
㉑	OK Key
㉒	BACK Key
㉓	VCR / DVD operation Keys

DIGITAL-IN TERMINAL FUNCTIONS

Pin No.	Pin name	Pin No.	Pin name
1	RX2-	13	RX3+
2	RX2+	14	5V
3	GND2/ 4	15	GND
4	RX4-	16	HTPLG
5	RX4+	17	RX0-
6	SCL	18	RX0+
7	SDA	19	GND0/5
8	NC	20	RX5-
9	RX1-	21	RX5+
10	RX1+	22	GNDC
11	GND1/3	23	TXC+
12	RX3-	24	TXC-

PIN ASSIGNMENT



2.3 TECHNICAL INFORMATION

2.3.1 MAIN MICRO COMPUTER (CPU) FUNCTION (MN102H75K)

Pin No.	Pin name	I/O	Function
1	NC	-	--------
2	/MICON_V	I	V.sync for OSD
3	LB_PRO	I	Low B protection detection
4	NC	-	--------
5	/RST	I	Main cpu reset input
6	NC	-	--------
7	/TEST	I	+3.3V
8	OSD_YS	O	OSD Ys output
9	NC	-	--------
10	NC	-	--------
11	A_MU	O	Audio muting
12	/MICON_H	I	H sync input
13	M_MU	O	Monitor sound out muting
14	P46,OSDXI	-	Keep for OSD
15	P45,OSDXO	-	Keep for OSD
16	SDA2	I/O	I^2C bus (CLK) for MTS
17	AC_IN	I	AC (60Hz) input
18	SCL2	O	I^2C bus (DATA) for MTS
19	TU_POW	O	Tuner power control
20	VCOI	I	LPF input
21	PDO	O	LPF output
22	/IP_RESET	O	Reset
23	OSD_YM	O	OSD YM output
24	OSD_B	O	OSD blue output
25	POWER_LED	O	Lighting for POWER LED
26	OSD_G	O	OSD green output
27	OSD_R	O	OSD red output
28	VREF	I	--------
29	IP_ERR	I	AMDP program load detect.
30	IREF	I	--------
31	COMP	I	--------
32	AVDD	I	+3.3V
33	CLL	I	For sub CCD
34	VREFLS	I	STD VOL for sub CCD
35	SUB_CCD	I	For sub CCD
36	NC	-	--------
37	VSS	I	GND
38	MAIN_CCD	I	For main CCD
39	VREFHS	I	STD VOL for main CCD
40	CLH	I	For main CCD
41	VDD/VPP	O	+3.3V
42	CLK SW1	O	IP clock switch

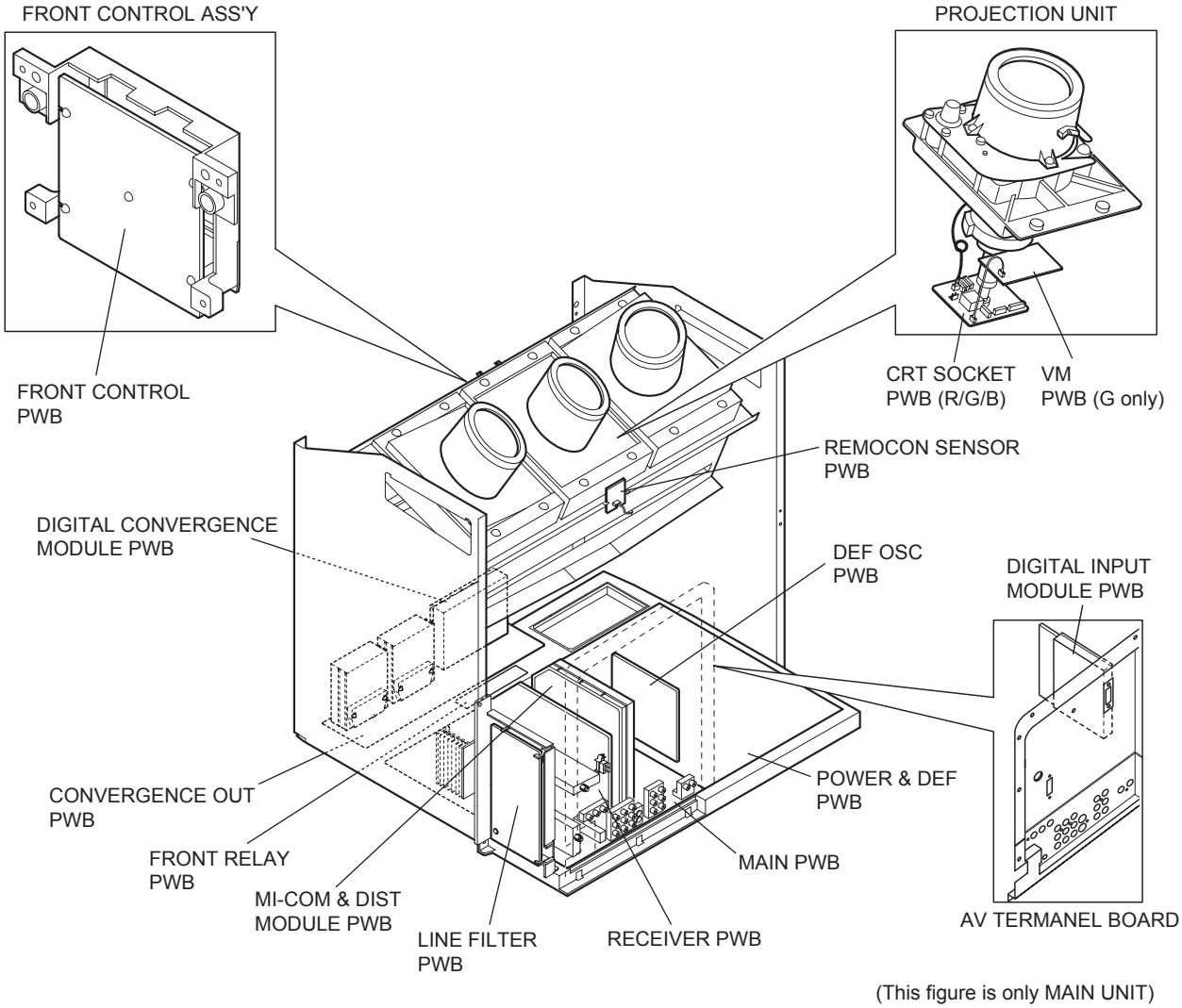
Pin No.	Pin name	I/O	Function
43	CLK SW2	O	IP clock switch
44	ON_TIM	O	Lighting for ON TIMER
45	CONVER_RXD	O	Convergence control
46	CONVER TXD	I	Convergence control
47	SBT1	I	--------
48	NC	-	--------
49	NC	-	--------
50	NC	-	--------
51	NC	-	--------
52	EE_ABL	O	ACL control
53	CHROMA	O	Chroma / gamma control
54	DC_COTL	O	DC, control
55	NC	-	--------
56	NC	-	--------
57	TU2_AID	I	Main AFC input
58	/LOB_POW	O	Low B power control
59	COMPULINK	I	AV COMPULINK lll input
60	/POWERGOOD	I	Power condition check
61	MECA_ON	I	Machine SW interrupt
62	/MAIN_POW	O	Main power control
63	NC	-	--------
64	/B1 POW	O	B1 power control
65	C/N	I	AFC voltage input
66	X_RAY	I	X-ray protection detection
67	NC	-	--------
68	KEY2	I	Front key input 2
69	KEY1	I	Front key input 1
70	SCL1	O	I^2C bus (CLK) for EEP-ROM
71	SDA1	I/O	I^2C bus (SDA) for EEP-ROM
72	REMO	I	Remote control input
73	NC	-	--------
74	VSS	I	GND
75	OSC2	O	4MHz clock oscillation
76	OSC1	I	4MHz clock oscillation
77	VDD	I	+3.3V
78	SCL0	O	I^2C bus (CLK) for general
79	AP_CLK	-	--------
80	SDA0	I/O	I^2C bus (SDA) for general
81	NC	-	--------
82	NC	-	--------
83	NC	-	--------
84	P_MU	O	Picture muting

2.4 MAIN PARTS LOCATION

2.4.1 PWB ASS'Y ARRANGEMENT

The PWB ASS'Y is indicated below.

PWB ASS'Y NAME	AV-48WP74	AV-56WP74
MAIN PWB ASS'Y	SSB-1070A-M2	SSB-1069A-M2
RECEIVER PWB ASS'Y	SSB0R368A-M2	SSB0R368A-M2
MI-COM & DIST MODULE PWB ASS'Y	SSB0D070A-M2	SSB0D069A-M2
POWER & DEF PWB ASS'Y	SSB-2070A-M2	SSB-2069A-M2
DEF OSC PWB ASS'Y	SSB0H068A-M2	SSB0H068A-M2
LINE FILTER PWB ASS'Y	SSB-9068A-M2	SSB-9068A-M2
FRONT RELAY PWB ASS'Y	SSB0L268A-M2	SSB0L268A-M2
CONVERGENCE OUT PWB ASS'Y	SSB-5068A-M2	SSB-5068A-M2
DIGITAL CONVERGENCE MODULE PWB ASS'Y	SSB0K070A-M2	SSB0K069A-M2
DIGITAL INPUT MODULE PWB ASS'Y	--------	--------
REMOCON SENSOR PWB ASS'Y	SSB-8068A-M2	SSB-8068A-M2
R CRT SOCKET PWB ASS'Y	SSB-3168A-M2	SSB-3168A-M2
G CRT SOCKET PWB ASS'Y	SSB-3268A-M2	SSB-3268A-M2
B CRT SOCKET PWB ASS'Y	SSB-3368A-M2	SSB-3368A-M2
G VM PWB ASS'Y	SSB-7268A-M2	SSB-7268A-M2
FRONT CONTROL PWB ASS'Y	SSB0L068A-M2	SSB0L068A-M2



(This figure is only MAIN UNIT)

2.5 SCREEN HANDLING CAUTIONS

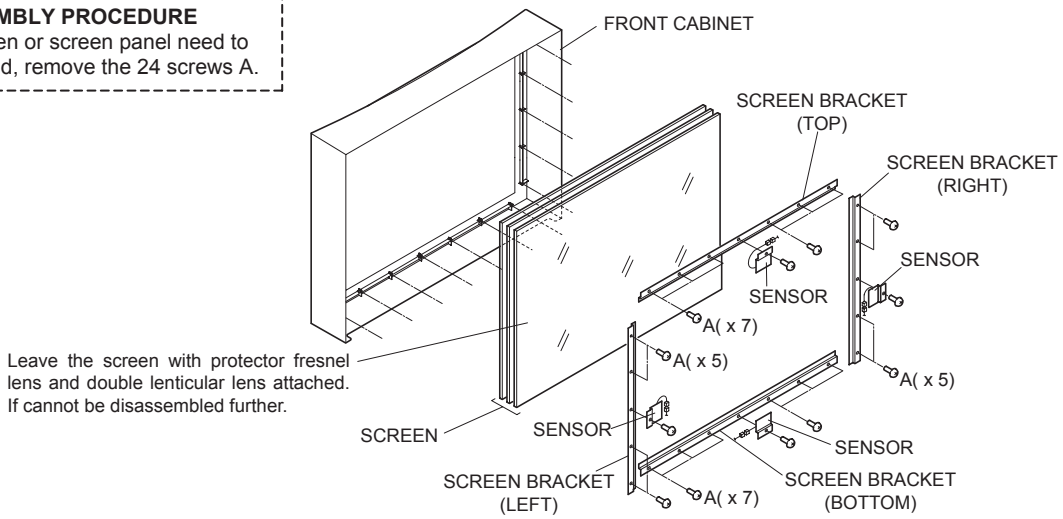
2.5.1 SCREEN STORAGE

Store the SCREEN ASS'Y in a standing position in order to avoid deformation. If the screen is stored horizontally, there is risk of deforming the screen face.
When necessary to place the SCREEN ASS'Y horizontally, position the screen side upwards and sure to place spacers between the screen and resting site (floor or stand etc.) to prevent the screen from sagging.

2.5.2 SCREEN SURFACE

Since the screen surface is easily scratched or soiled, use ample care when handling.

DISASSEMBLY PROCEDURE
If the screen or screen panel need to be replaced, remove the 24 screws A.



2.6 PROJECTION UNIT REPLACEMENT

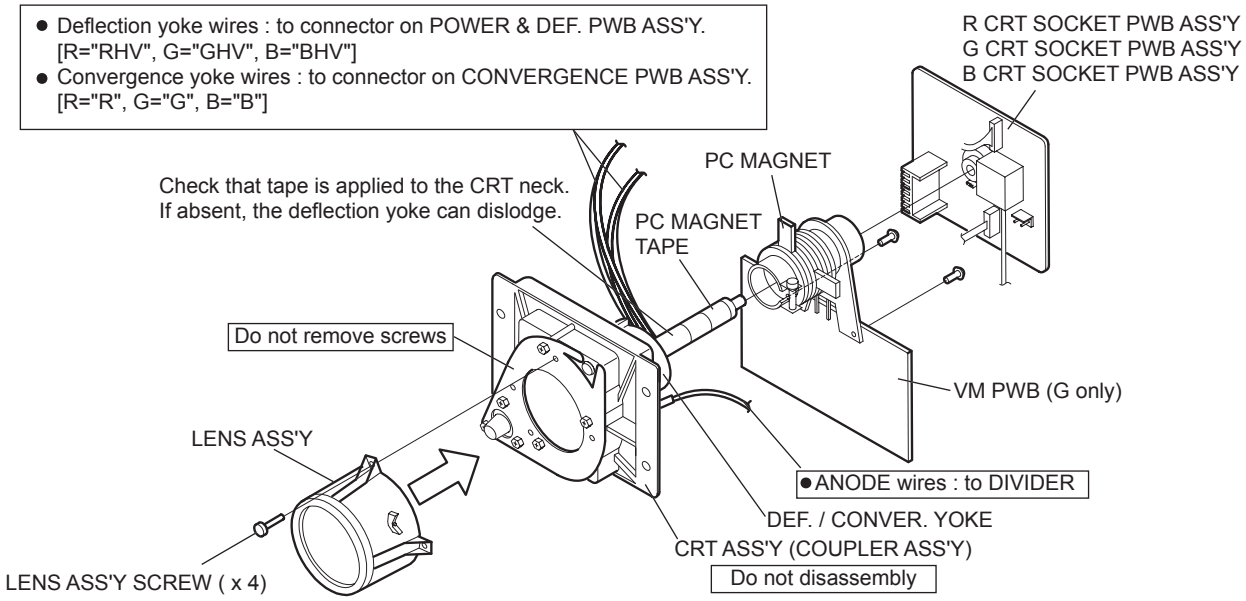
2.6.1 ADJUSTMENT DURING REPLACEMENT

When replacing the three R, G and B projection units, first replace the R and B units and perform focus / screen / raster centering adjustments with reference to the G unit. Then replace the G unit and perform G focus / screen / convergence adjustment. Finally perform R & B convergence adjustments. Use care to simultaneously removes all three-projection units.

2.6.2 DISASSEMBLY CAUTION

The projection units include locations that are not to be disassembled during service. When replacing projection unit parts, disassemble to the state indicated in the figure below.
The figure indicates screws and wires that are not to be removed. Use care not to remove these.

- Deflection yoke wires : to connector on POWER & DEF. PWB ASS'Y. [R="RHV", G="GHV", B="BHV"]
- Convergence yoke wires : to connector on CONVERGENCE PWB ASS'Y. [R="R", G="G", B="B"]



2.7 DISASSEMBLY PROCEDURE

• Make sure that the power cord is pulled out from the AC outlet.

2.7.1 SPEAKER GRILLE

(1) Remove 4 screws **[A]** from rear side.
(2) Open the door of the FRONT CONTROL BOX and remove 2 screws **[B]** from front side.
(3) Take out the SPEAKER GRILLE.

2.7.2 SPEAKER (WOOFER)

• Take out the SPEAKER GRILLE
(1) Remove 4 screws **[C]**.
(2) Take out the WOOFER.
(3) Disconnect the speaker wire from speaker terminal.

*Remove the both side speaker same manner.

2.7.3 SPEAKER (TWEETER)

• Take out the SPEAKER GRILLE
(1) Remove 2 screws **[D]**.
(2) Take out the TWEETER.
(3) Disconnect the speaker wire from speaker terminal.

*Remove the both side speaker same manner.

2.7.4 FRONT BOARD

• Take out the SPEAKER GRILLE.
(1) Remove 4 screws **[E]**.
(2) Take out the FRONT BOARD.

2.7.5 FRONT CONTROL BOX

• Take out the SPEAKER GRILLE.
(1) Remove 4 screws **[F]** attaching the FRONT CONTROL BOX.
(2) Disconnect the connector **[BH]**, **[R]**, **[BG]** on the FRONT CONTROL PWB.
(3) Take out the FRONT CONTROL BOX.

2.7.6 FRONT CONTROL PWB

• Take out the SPEAKER GRILLE.
• Take out the FRONT CONTROL BOX.
(1) Remove 3 screws **[G]** from rear side of FRONT CONTROL BOX.
(2) Take out the FRONT CONTROL PWB.

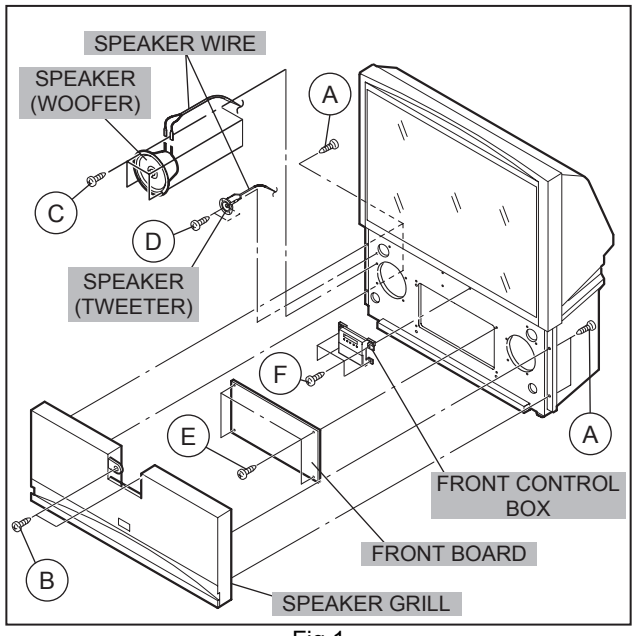


Fig.1

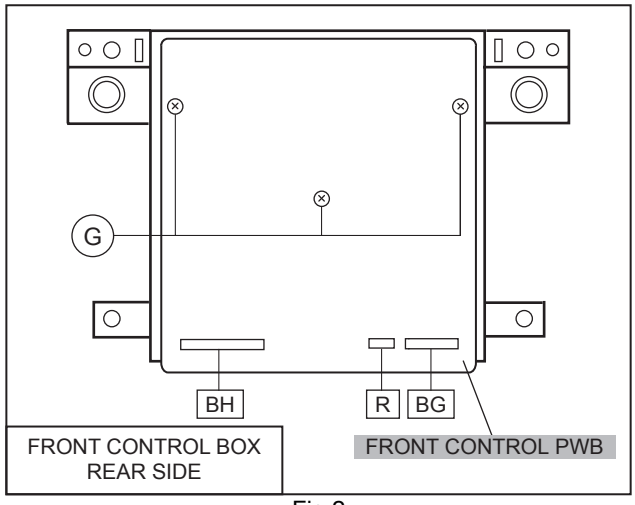
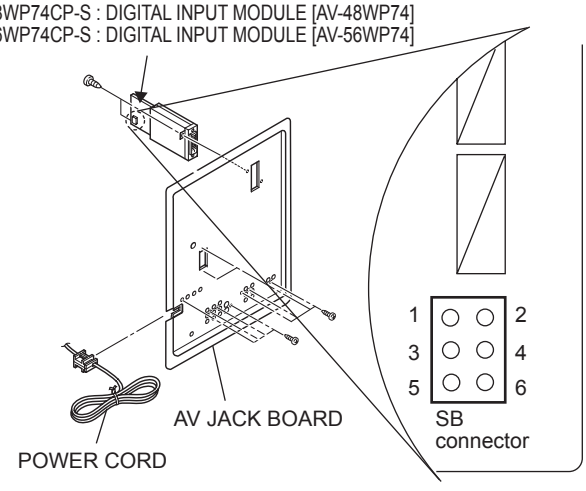


Fig.2

CAUTION AT DISASSEMBLY

48WP74CP-S : DIGITAL INPUT MODULE [AV-48WP74]
56WP74CP-S : DIGITAL INPUT MODULE [AV-56WP74]



- Prior to disassembly, unplug the power code from the AC outlet without fail. (Turn the power "off".)
- Short the SB connector [1] pin and [2] pin of the DIGITAL INPUT MODULE. (At the time of assembling)
- Before the rear panel is inserted into the cabinet, release the short-circuit between the SB connector [1] pin and [2] pin of the DIGITAL INPUT MODULE.
- After releasing the short-circuit between the SB connectors, do not turn the power on until the rear panel is inserted into the cabinet.

* Negligence in carrying out the above steps may cause the inactivation of the TV.

2.7.7 SCREEN ASS'Y

- Take out the SPEAKER GRILLE.
- Take out the FRONT CONTROL BOX.
  (1) Remove the 2 screws **[H]** under the SCREEN ASS'Y from front side.
  (2) Remove 10 screws **[I]** from rear side.
  (3) Take out the connector **[CN00Z]**.
  (4) Take out the SCREEN ASS'Y.

NOTE :

- Please place the SCREEN ASS'Y on a flat table without fail.
- Because of the large size, at least two parsons are recommended for removal and reassemble.
- Use core not to scratch the screen during work.
- During assembly, be sure to engage the left and right tabs with the cabinet mounting positions.
- When supporting the SCREEN ASS'Y, grasp the both sides of the screen panel instead of the upper side of the screen panel.

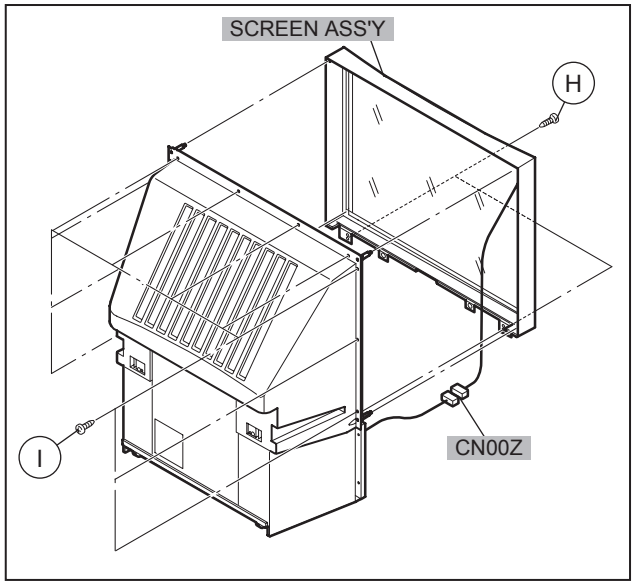


Fig.3

2.7.8 MIRROR

- Take out the SPEAKER GRILLE.
- Take out the FRONT CONTROL BOX.
- Take out the SCREEN ASS'Y.
  (1) Remove 2 screws **[J]** attaching the mirror stopper.
  (2) Raise slightly to disengage of the mirror from the hooks.
  (3) Take out the MIRROR.

NOTE :

- The MIRROR is front-coated. Do not touch the front of the MIRROR.
- At least 2 persons are recommended for removable and reassemble.

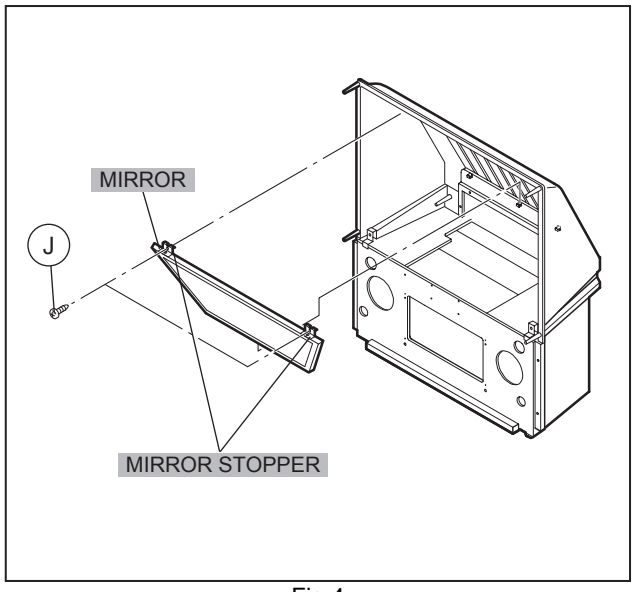


Fig.4

2.7.9 REAR PANEL

(1) Loosen 7 screws **[K]**.
(2) Remove 4 screws **[L]**.
(3) Raise slightly REAR PANEL upward.
(4) Take out the REAR PANEL.

NOTE :

- Before the rear panel is inserted into the cabinet, release the short-circuit between the [SB] connector (1) pin and (2) pin of the DIGITAL INPUT UNIT. (Refer to "CAUTION AT DISASSEMBLY" on Page 11).
- After releasing the short-circuit between the [SB] connectors, do not turn the power on until the rear panel is inserted into the cabinet.

⚠ **Prior to starting the work, be sure to read the following written instructions on the CAUTION LABEL attached to the REAR PANEL.**
UNPLUG THE POWER CORD FROM AC OUTLET BEFORE OPEN THE REAR COVER (PANEL).
When the rear cover (panel) is removed, follow "CAUTION AT DISASSEMBLY" procedure in the service manual before plugging the TV's power cord into an AC outlet.
Failure to follow the procedure will result in PERMANENT damage to some of the television features.

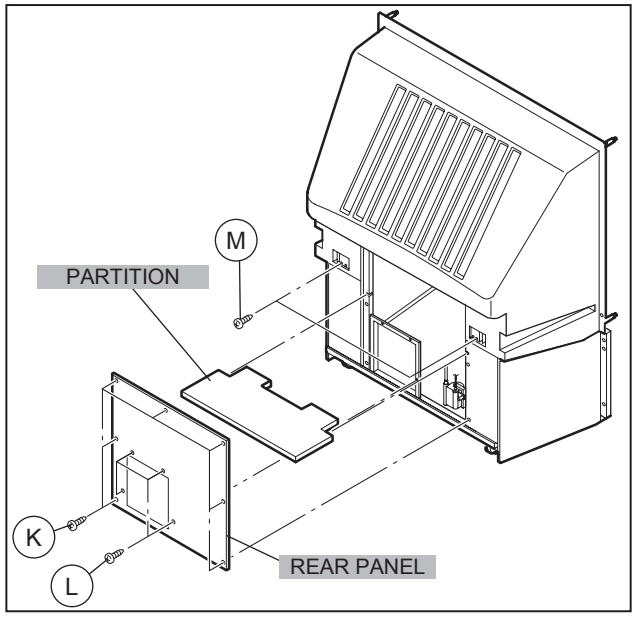


Fig.5

2.7.10 PARTITION

- Take out the REAR PANEL.
  (1) Pull out the PARTITION back ward.

2.7.11 REAR COVER

- Take out the SPEAKER GRILLE.
- Take out the FRONT CONTROL BOX.
- Take out the SCREEN ASS'Y.
  (1) Remove 2 screws **[M]**. (Fig.5)
  (2) Remove 2 screws **[N]** from front side.
  (3) Slightly pull for backside to disengage of the REAR COVER from hooks.
  (4) Take out the REAR COVER.
    - Because of the large size, at least two persons are recommended for removal and reassemble.

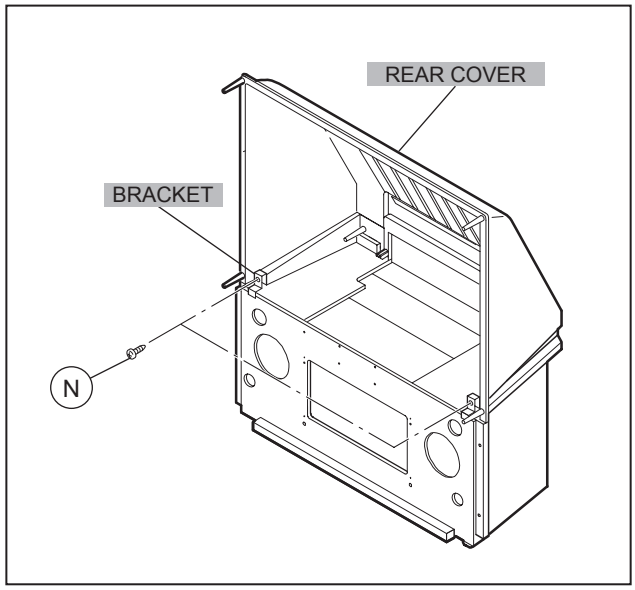


Fig.6

2.7.12 MAIN UNIT

- Take out the SPEAKER GRILLE.
- Take out the connector [BH], [R], [BG] on the FRONT CONTROL PWB.
- Take out the REAR PANEL.
  (1) Remove 4 screws **[O]** from front side.
  (2) Remove 1 screw **[P]** and 3 screws **[Q]** attaching the MAIN CHASSIS and BODY.
  (3) Pull out the MAIN UNIT rear side.

NOTE :

- Except for confirmation of projection of images on the screen and audio output through the speakers, the removed MAIN UNIT is still workable in the same state as if it is still built in the TV set. Therefore, the MAIN UNIT can be removed, if necessary, for board diagnosis, electric testing, etc. apart from confirmation of screen images and audio output.
- When wire clamps are removed during work, use care to restore them precisely to their original positions. Performance can be affected if these are not returned to the original positions.
- Because of the large size, at least two persons are recommended for removal and reassemble.
- When carrying the MAIN UNIT, use care not to drop, shock or shake it.
- Do not stain or damage the lens of the PROJECTION UNIT.
- Do not look through the PROJECTION UNIT.

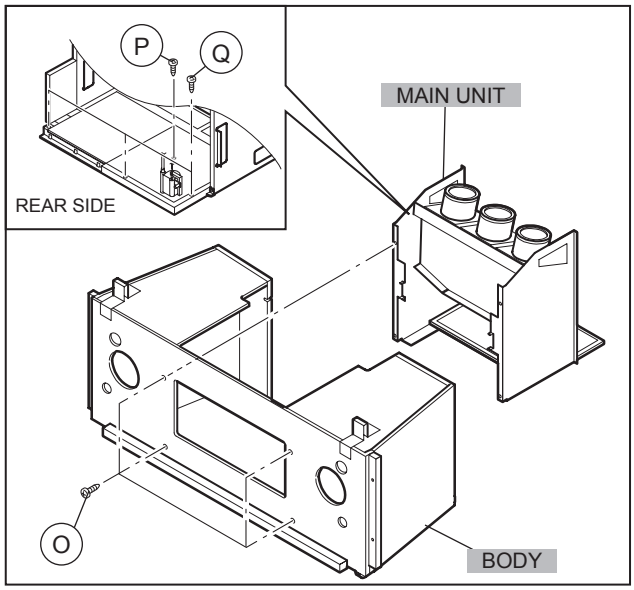


Fig.7

2.7.12.1 CHECKING THE P.W. BOARD

When checking the MAIN PWB, POWER & DEF PWB, etc., raise the MAIN UNIT with the HV DIVIDER side down for the sake of convenience. You can checking the POWER & DEF PWB and CONVERGENCE OUT PWB.

2.7.13 LINE FILTER PWB

- Take out the REAR PANEL.
- Take out the AV TERMINAL BOARD. (Refer to next page)
  (1) Disconnect the connector **[B]**, **[F]** on the LINE FILTER PWB.
  (2) Remove 3 screws **[R]** attaching the LINE FILTER BRACKET and earth wire.
  (3) Remove 3 screws **[S]** attaching LINE FILTER PWB.
  (4) Take out the LINE FILTER PWB.

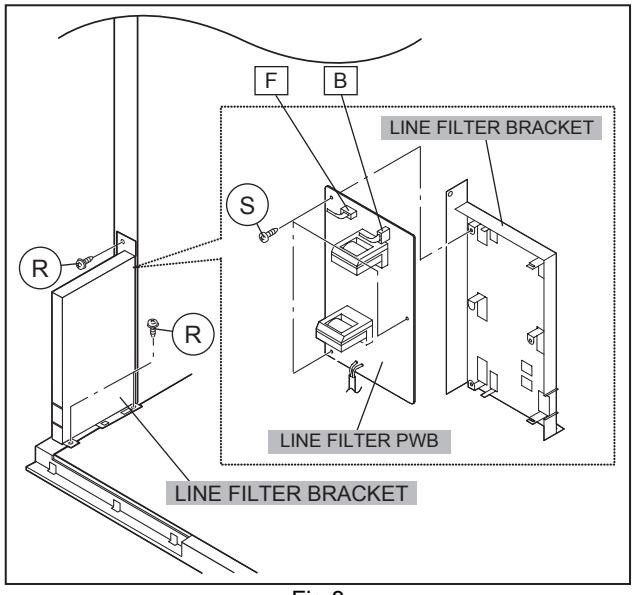


Fig.8

2.7.14 AV TERMINAL BOARD

- Take out the REAR PANEL
  (1) Remove 9 screws **[T]**.
  (2) Remove 1 screws **[U]**.
  (3) Pull out the POWER CORD CLAMP from AV TERMINAL BOARD left side.
  (4) Remove the nut **[V]** attaching the ANTENNA TERMINAL.
  (5) Take out the AV TERMINAL BOARD.

2.7.15 DIGITAL INPUT MODULE

- Take out the REAR PANEL
  (1) Remove 2 screws **[W]** from rear side of the AV TERMINAL BOARD.
  (2) Take out the DIGITAL INPUT MODULE.

NOTE :

- When removing the DIGITAL INPUT MODULE, refer to the "CAUTION AT DISASSEMBLY" section on page 11.

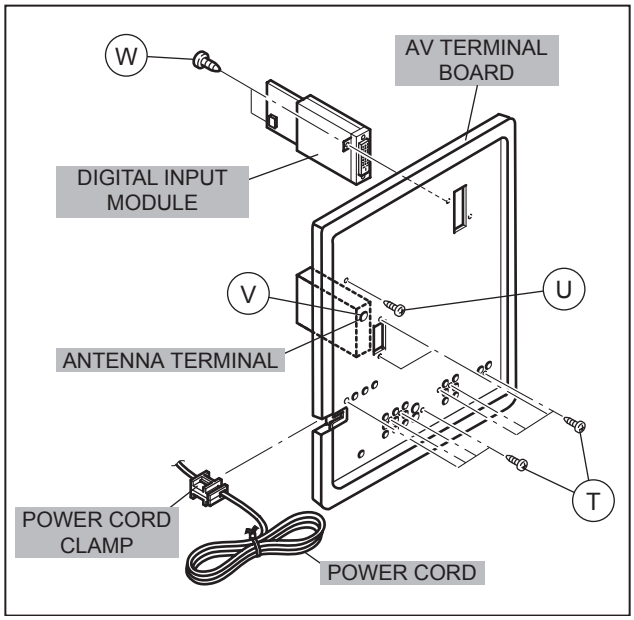


Fig.9

2.7.16 MAIN CHASSIS

- Take out the REAR PANEL.
- Take out the AV TERMINAL BOARD.
- Take out the LINE FILTER BRACKET.
  (1) Remove 2 screws **[X]** both side of the MAIN CHASSIS.
  (2) Remove 1 screws **[Y]** attaching the earth wire.
  (3) Remove 1 screw **[P]** attaching the MAIN CHASSIS and BODY.(Fig.7)
  (4) Pull out the MAIN CHASSIS for back side.

NOTE :

- If necessary, remove the anode wires, connectors, respectively.

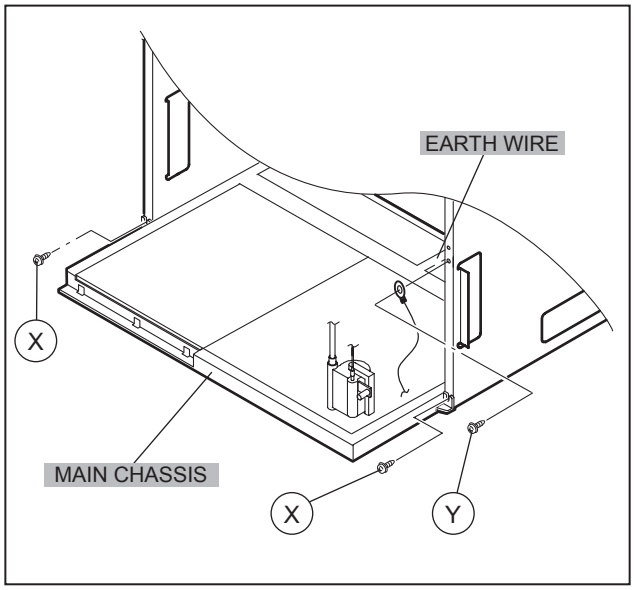


Fig.10

2.7.17 PROJECTION UNIT

- Take out the SPEAKER GRILLE
- Take out the FRONT CONTROL BOX
- Take out the REAR PANEL
- Take out the MAIN UNIT.
  (1) Take out the CRT SOCKET PWB.
  (2) Remove 4 screws **[Z]** attaching the PROJECTION UNIT.
  (3) Pull out the PROJECTION UNIT, upward.

NOTE :

- Refer to "PROJECTION UNIT REPLACEMENT" on page 10 when taking out and replacing the PROJECTION UNIT.
- When wire clamps are removed during work, use care to restore them precisely to their original positions. Performance can be affected if these are not returned to the original positions.

2.7.18 HV DIVIDER

- Take out the REAR PANEL
  (1) Remove 1 screws **[a]** attaching the HV DIVIDER.
  (2) Take out the HV DIVIDER.
  Wires of the transformer (FBT) and CRT of each PROJECTION UNIT can be removed by turning the connector portions.

NOTE :

- If necessary, remove the anode wires, and replacing the HV DIVIDER, take care to correctly engage the **[b]** connector.

2.7.19 REMOCON SENSOR PWB

- Take out the REAR PANEL
  (1) Remove 1 screws **[c]** attaching the REMOCON SENSOR PWB.
  (2) Take out the REMOCON SENSOR PWB.

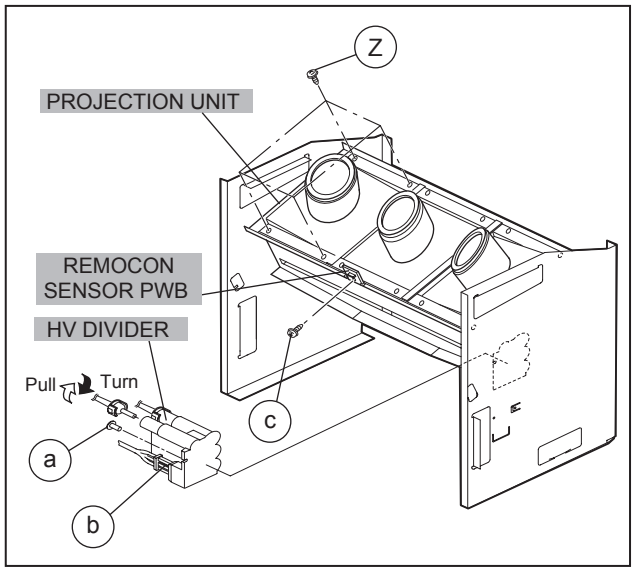


Fig.11

2.8 REPLACEMENT OF CHIP COMPONENT

2.8.1 CAUTIONS

(1) Avoid heating for more than 3 seconds.
(2) Do not rub the electrodes and the resist parts of the pattern.
(3) When removing a chip part, melt the solder adequately.
(4) Do not reuse a chip part after removing it.

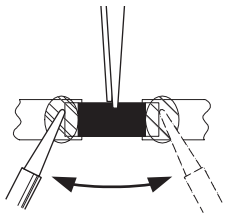
2.8.2 SOLDERING IRON

(1) Use a high insulation soldering iron with a thin pointed end of it.
(2) A 30w soldering iron is recommended for easily removing parts.

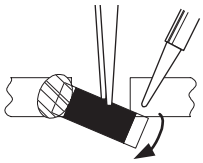
2.8.3 REPLACEMENT STEPS

1. How to remove Chip parts
[Resistors, capacitors, etc.]

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



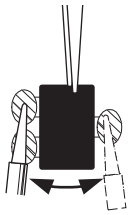
(2) Shift with the tweezers and remove the chip part.



[Transistors, diodes, variable resistors, etc.]

(1) Apply extra solder to each lead.

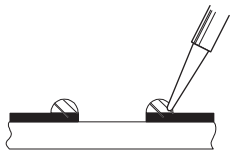
(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



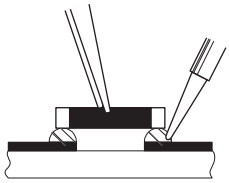
Note :
After removing the part, remove remaining solder from the pattern.

2. How to install Chip parts
[Resistors, capacitors, etc.]

(1) Apply solder to the pattern as indicated in the figure.

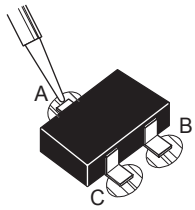


(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

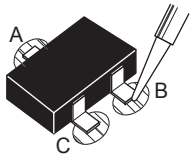


[Transistors, diodes, variable resistors, etc.]

(1) Apply solder to the pattern as indicated in the figure.
(2) Grasp the chip part with tweezers and place it on the solder.
(3) First solder lead **A** as indicated in the figure.



(4) Then solder leads **B** and **C**.



2.9 MEMORY IC REPLACEMENT

2.9.1 MEMORY IC

This memory IC stores data for proper operation of the video and deflection circuits.
When replacing, be sure to use an IC containing this (initial value) data.

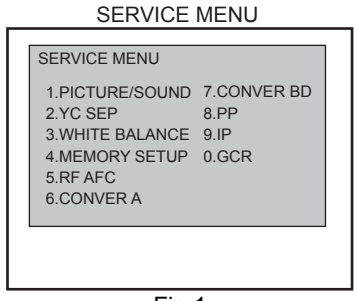


Fig.1

2.9.2 MEMORY IC REPLACEMENT PROCEDURE

(1) Power off
Switch off the power and disconnect the power cord from the wall outlet.
(2) Replace the memory IC
Initial value must be entered into the new IC.
(3) Power on
Connect the power cord to the wall outlet and switch on the power.
(4) SERVICE MENU setting
a) Press **[SLEEP TIMER]** key and, while the indication of **SLEEP TIMER 0 MIN** is being displayed, press **[DISPLAY]** key and **[VIDEO STATUS]** key on the remote control unit (Fig.2) simultaneously.
b) The SERVICE MENU screen of Fig.1 is displayed.
c) Verify what to set in the SERVICE MENU, and set whatever is necessary (Fig.1).
Refer to the SERVICE ADJUSTMENT for setting.
d) Press the [BACK] key twice to return normal screen.
(5) Receive channel setting
Refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the receive channels (Channels Preset) as described.
(6) User settings
Check the user setting items according to after page.
Where these do not agree, refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the items as described.

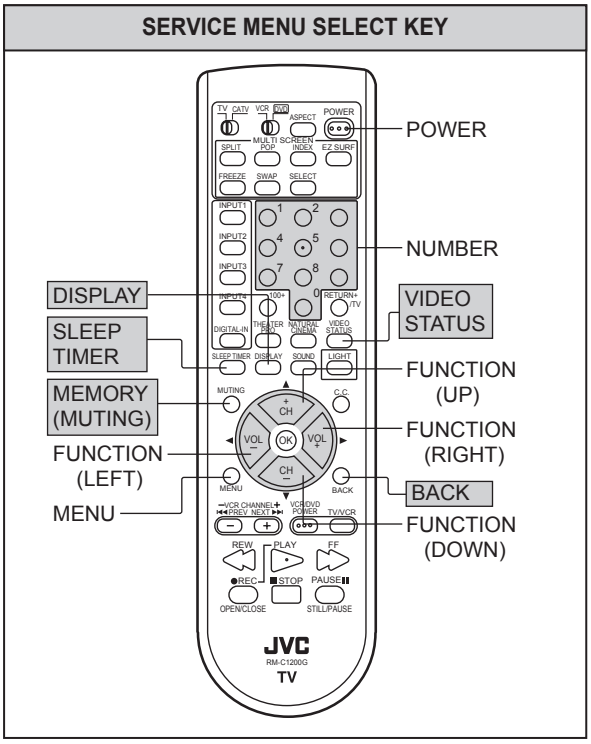


Fig.2

2.9.3 SERVICE ADJUSTMENT ITEM

Setting item	Item No.	Remark	Setting item	Item No.	Remark
1.PICTURE / SOUND			7.CONVER B		
AUDIO	A01~A27		Convergence adjustment	------	
VIDEO	S01~S99		8.PP		
DEFLECTION	D01~D32		Multi-picture adjustment and setting	ADM001~ADM034	Do not adjust
FACTORY setting	F01~F70			PPA001~PPA008	Do not adjust
2.YC SEP				PPB001~PPB036	Do not adjust
YC separation setting	YCM001~YCM185	Do not adjust		PPC001~PPC008	Do not adjust
	YCS001~YCS114	Do not adjust		PPD001~PPD025	Do not adjust
3.WHITE BALANCE			9.IP		
LOW LIGHT / HIGH LIGHT adjustment	BR, DRV R, DRV B, CWT R, CWT G, CWT B		DIST process setting	IPA001~IPA120	Do not adjust
4.MEMORY SETUP	------	Do not adjust		IPB001~IPB079	Do not adjust
5.RF AFC				IPC001~IPC044	Do not adjust
Tuner AFC setting	TUNER, AFC,FINE	Do not adjust		IPD001~IPD026	Do not adjust
6.CONER A				IPE001~IPE015	Do not adjust
Convergence adjustment	CPA01~CPA08		0.GCR		
	CCA01~CCA09		Ghost reduction setting		Not use
	CBA01~CBA80	Do not adjust			

2.9.4 SHIPPING FACTORY SETTING

VIDEO STATUS MEMORY (NTSC / 480p)

Item	Setting value					
	TINT	COLOR	PICTURE	BRIGHT	DETAIL	COLOR TEMPERATURE
STANDARD	0	0	0	0	0	LOW
THEATER	0	0	0	0	0	HIGH
DYNAMIC	0	0	10	0	5	HIGH
GAME	0	0	-10	0	0	HIGH

(HD)

Item	Setting value					
	TINT	COLOR	PICTURE	BRIGHT	DETAIL	COLOR TEMPERATURE
STANDARD	0	0	0	0	0	LOW
THEATER	0	0	0	0	0	HIGH
DYNAMIC	0	0	5	0	0	LOW
GAME	0	0	-10	0	0	HIGH

CHANNEL SETTING (CHANNEL SUMMARY)

Band	CH display		Band	CH display	
VHF LOW	2		SUPER	K	24
	4			O	28
	5			R	31
	6			S	32
VHF HIGH	7			W	36
	9		SUBMID	A-4	96
	11			A-3	97
	13			A-2	98
UHF	14		HYPER	W+11	47
	36			W+12	48
	63			W+17	53
	69			W+23	59
MID	A	14			
	B	15			
	C	16			
	D	17			
	E	18			
	H	21			

SHIPPING FACTORY SETTING (USER SETTING)

Setting item	Setting value	Setting item	Setting value
POWER	OFF	TINT / COLOR / PICTURE/ BRIGHT / DETAIL	Refer to setting of Video status memory at shipping factory setting
CHANNEL	CABLE-02		
VOLUME	10		
INPUT	TV	COLOR TEMPERATURE	HIGH
		DIG. NOISE CLEAR	OFF
DISPLAY	OFF	BASS / TREBLE / BALANCE	Center
NATURAL CINEMA	AUTO	MTS	STEREO
SLEEP TIMER	0		
ASPECT	REGULAR		
VIDEO STATUS	DYNAMIC		
SOUND		SET CLOCK	Unnecessary to set
A.H.S	OFF	ON / OFF TIMER	NO
BBE	ON	LANGUAGE	ENG
HYPER SURROUND	OFF	NOISE MUTING	ON
		CLOSED CAPTION	OFF (CC1 / T1)
		FRONT PANEL LOCK	OFF
SPLIT SOURCE	left side : CA 02 right side : CA 04	AUTO SHUT OFF	OFF
		AUTO TUNER SET UP	Unnecessary to set
		DIGITAL-IN	SIZE 1
POP SOURCE	left side : CA 02 right upper : CA 04 right center : CA 05 right bottom : CA 07	(at 480p signal input)	
		CHANNEL SUMMARY	Refer to Last memory (CH. summary)
		V-CHIP	OFF
		SET LOCK CODE	Unnecessary to set
		AUTO DEMO	OFF
VERTICAL POSITION	Center		
CENTER CH INPUT	OFF		
XDS ID	ON		
CONVERGENCE	Optimum condition		
POWER INDICATOR	HIGH		

SECTION 3
ADJUSTMENTS

3.1 ADJUSTMENT PREPARATION

(1) You can make the necessary adjustments for this unit with either the Remote Control Unit or with the adjustment tools and parts as given below.
(2) Adjustment with the Remote Control Unit is made on the basis of the initial setting values, however, the new setting values which set the screen to its optimum condition may differ from the initial settings.
(3) Make sure that AC power is turned on correctly.
(4) Turn on the power for set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
(5) Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
(6) Never touch any adjustment setting value which are not specified in the list for this adjustment.
(7) Presetting before adjustment
Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit:

3.2 ADJUSTMENT EQUIPMENT

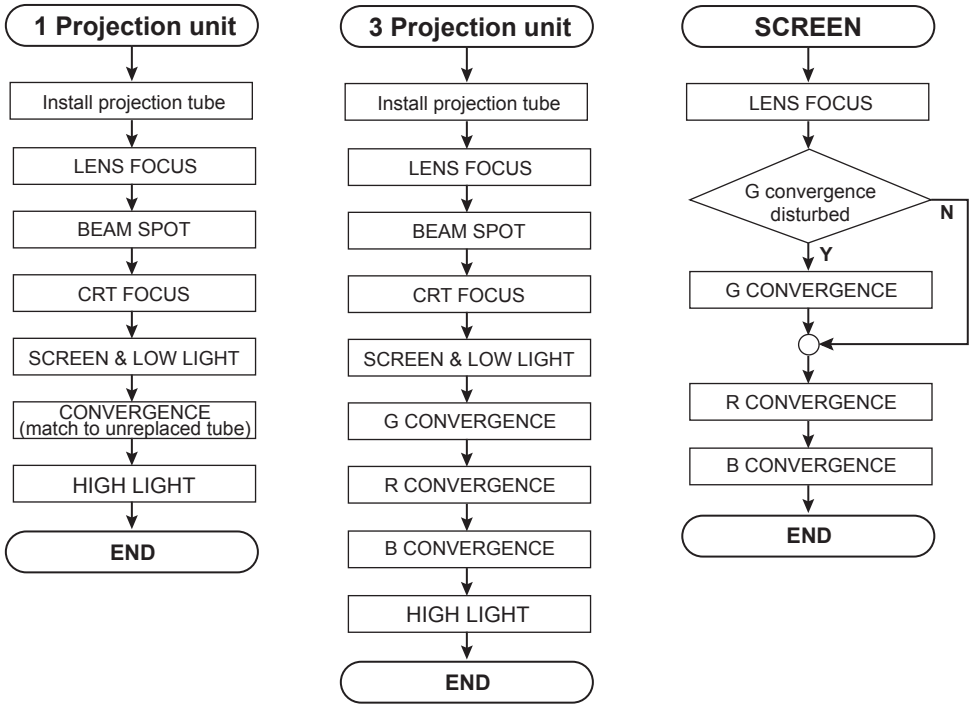
(1) DC voltmeter (or digital voltmeter)
(2) Oscilloscope
(3) Signal generator (Pattern generator)
[NTSC / 480i / 480p / 720p / 1080i / HDCP]
(4) TV audio multiplex signal generator
(5) Remote control unit

• **SETTING POSITION**

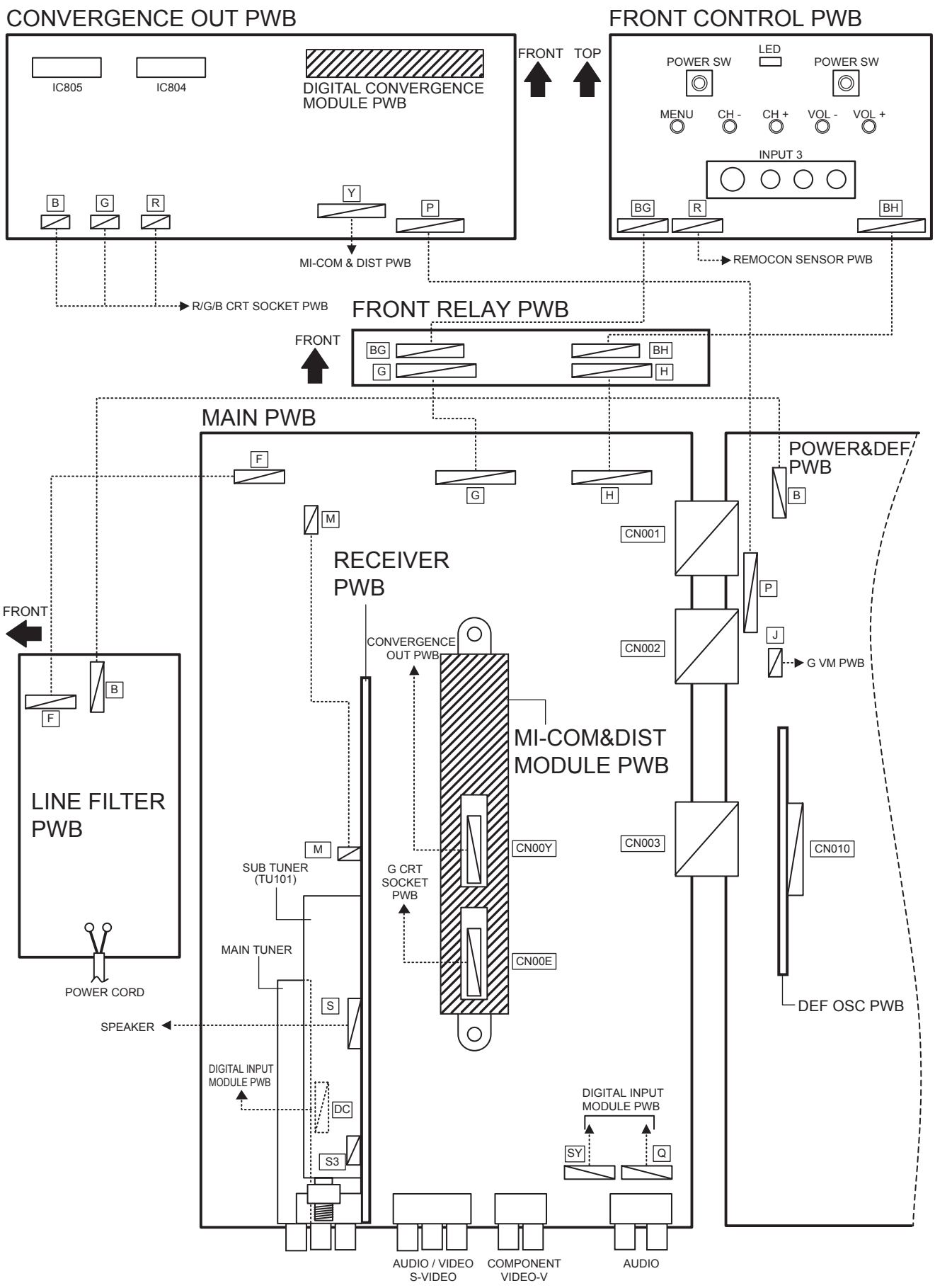
Setting item	Setting position	Setting item	Setting position
VIDEO STATUS	STANDARD	ASPECT	FULL
BASS / TREBLE / BALANCE	Center	VERTICAL POSITION	Center
HYPER SURROUND	OFF	BBE	ON
TINT / COLOR / PICTURE / BRIGHT / DETAIL	Center	ON/OFF TIMER	NO
COLOR TEMPERATURE	HIGH	AUTO SHUTOFF	OFF
DIGITAL NOISE CLEAR	OFF		

3.3 ADJUSTMENT FLOWCHART

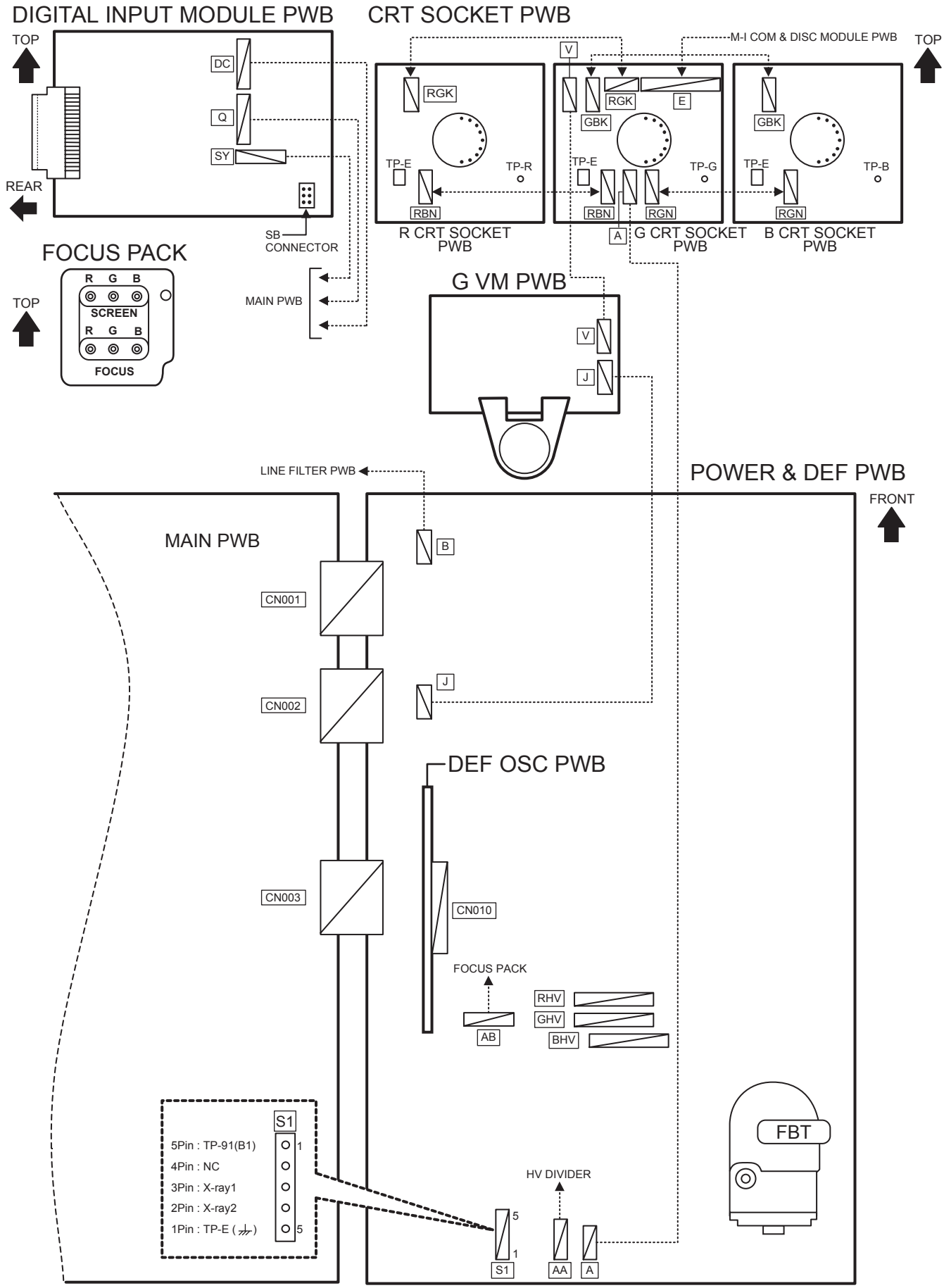
WHEN REPLACING SCREEN AND PROJECTION UNIT
• Contains only the main adjustments. Also confirm other adjustments as required.



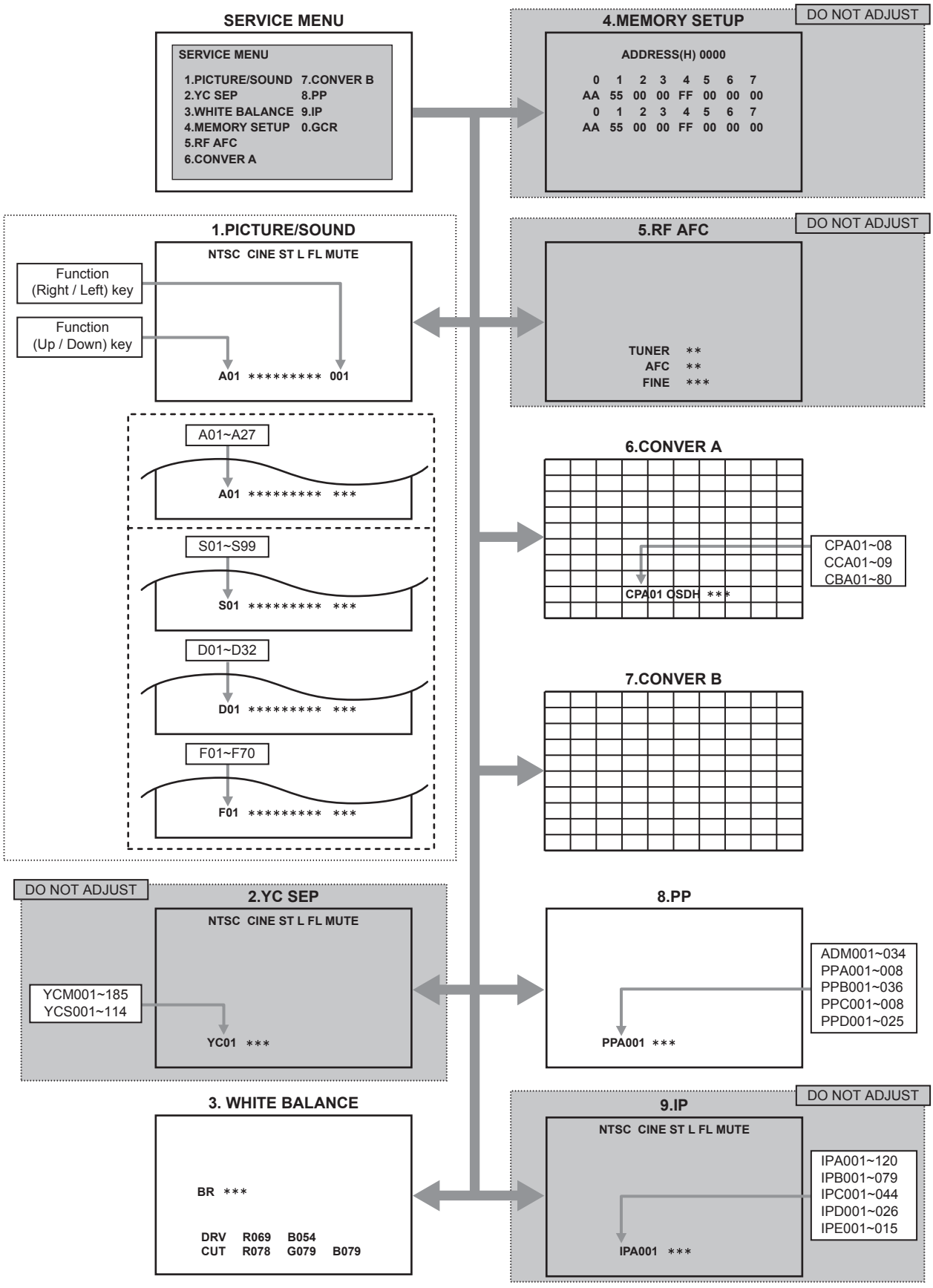
3.4 ADJUSTMENT LOCATION (1/2)



3.5 ADJUSTMENT LOCATION (2/2)



3.6 BASIC OPERATION OF SERVICE MENU



3.6.1 TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

3.6.2 SERVICE MENU ITEMS

In general, basic setting (adjustments) items or verifications are performed in the SERVICE MENU.

1.PICTURE / SOUND .... This sets the setting values of the VIDEO,AUDIO and DEFLECTION circuits.
2.YC SEP..... This is used when the YC separation circuit is adjusted. [Do not adjust]
3.WHITE BALANCE ..... This sets the setting values of the WHITE BALANCE.
4.MEMORY SETUP..... This sets the setting values of the MEMORY ADDRESS. [Do not adjust]
5.RF AFC..... This is used when the IF VCO is adjusted. [Do not adjust]
6.CONVER A ..... This is used when the CONVERGENCE is adjusted.
7.CONVER B ..... This is used when the CONVERGENCE is adjusted.
8.PP ..... This sets the setting value of the output of MULTI-PICTURE circuit.
9.IP ..... This sets the setting value of the DIST circuit. [Do not adjust]
0.GCR..... This model do not built-in.

3.6.3 BASIC OPERATIONS OF THE SERVICE MENU

(1) How to enter the SERVICE MENU.

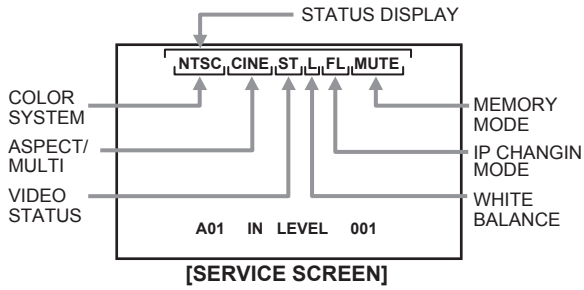
Press [SLEEP TIMER] key and, while the indication of "SLEEP TIMER 0 MIN." is being displayed, press [DISPLAY] key and [VIDEO STATUS] key on the remote control unit simultaneously to enter the SERVICE MENU screen as shown in the fig.1.

(2) Releasing SERVICE MENU

After returning to the SERVICE MENU upon completion of the setting work, press the BACK key again.

3.6.4 DESCRIPTION OF STATUS DISPLAY

The status display on the upper part of the SERVICE MENU screen is common (to all models).



[SERVICE SCREEN]

(1) COLOR SYSTEM

NTSC : 480i (COMPOSITE/S input)
DVD : 480i (COMPONENT)
ED : 480p
HD : 1080i
720 : 720p
HED1 : HDCP 480p SIZE1
HED2 : HDCP 480p SIZE2
HHD : HDCP 1080i
H750 : HDCP 720p

(2) ASPECT / MULTI

ONE SCREEN

FULL : FULL
PANO : PANORAMA
CINE : CINEMA
REGU : REGULAR

MULTI SCREEN

M1 : One screen (for adjustment)
M2-1 : SPLIT (4 : 3)
M2-2 : SPLIT (16 : 9)
M4 : POP
M12 : INDEX

(3) VIDEO STATUS

ST : STANDARD
DA : DYNAMIC
TH : THEATER
GA : GAME

(4) WHITE BALANCE

H : HIGH
L : LOW

(5) IP CHANGING MODE

FL : FRAME
L1 : LINE
23 : COMPULSORY NATURAL CINEMA IN

(6) MEMORY MODE

MUTE : Press [MUTING] key
DIR : Change data then memory at the same time.

3.6.5 SERVICE MENU SETTING

1. PICTURE/SOUND

AUDIO, VIDEO, DEFLECTION data adjustment.

1.SETTING ITEM No.

A : AUDIO
S : SIGNAL
D : DEFLECTION
F : FACTORY SETTING

• Press [CH+] / [CH-] key

Item No. is up/down

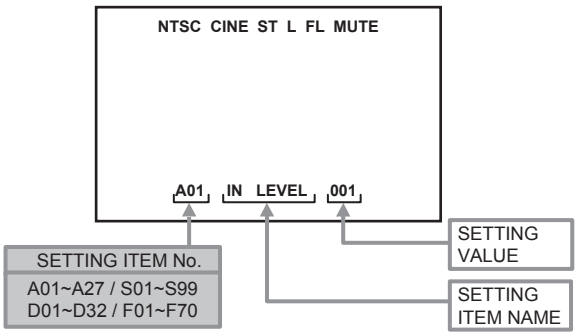
• Press [SLEEP TIMER] key

Skip change

2.SETTING ITEM NAME
Describe setting item name

3.SETTING VALUE
Set the setting value.
• Press [VOL+] / [VOL-] key
Set the setting value.
• Press [MUTING] key
Memorize the data.

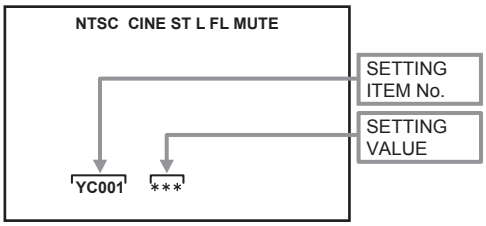
1.PICTURE/SOUND



2. YC SEP

YC separation circuit setting
[Do not adjust]

2.YC SEP



3. WHITE BALANCE

Adjustment of LOW LIGHT / HIGH LIGHT

1.SELECT ITEM
• Press [CH+] / [CH-] key

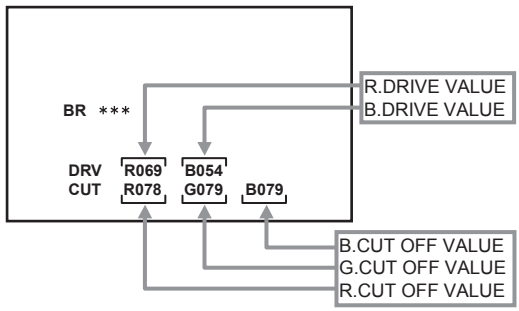
2.SETTING VALUE

BRIGHT
• Press [VOL+] / [VOL-] key

DRIVE
[4] key : DRIVE R is up
[7] key : DRIVE R is down
[6] key : DRIVE B is up
[9] key : DRIVE B is down

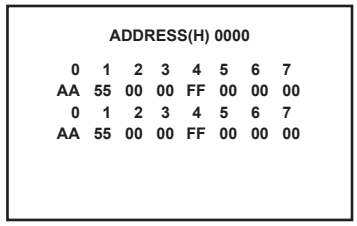
CUTOFF
[4] key : CUTOFF R is up
[7] key : CUTOFF R is down
[5] key : CUTOFF G is up
[8] key : CUTOFF G is down
[6] key : CUTOFF B is up
[9] key : CUTOFF B is down

3. WHITE BALANCE



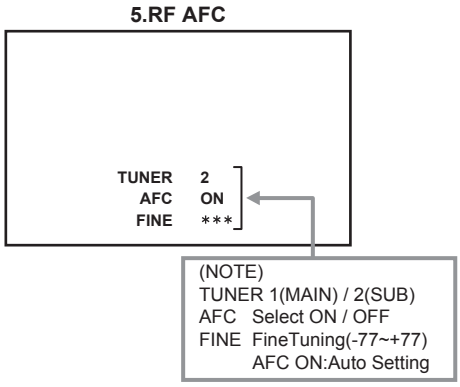
4. MEMORY SETUP
[Do not adjust]

4.MEMORY SETUP



5. RF AFC

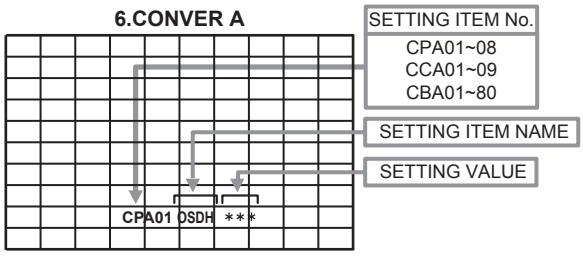
[Do not adjust]



6. CONVER A

Setting the CONVERGENCE PHASE adjustment

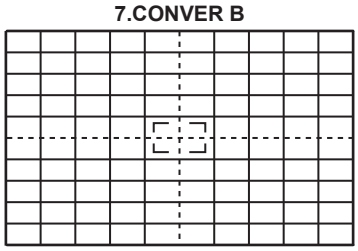
- Setting for 6.CONVER A is described in the CONVERGENCE adjustment page.



7. CONVER B

Setting the CONVERGENCE POINT (fine)

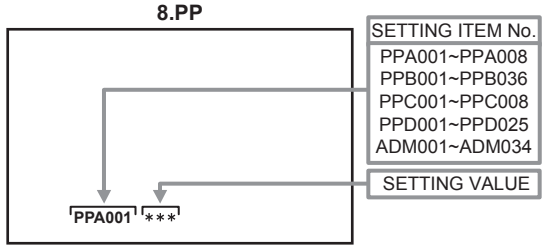
- Setting for 7.CONVER B is described in the CONVERGENCE adjustment page.



8. PP

MULTI-PICTURE circuit data setting

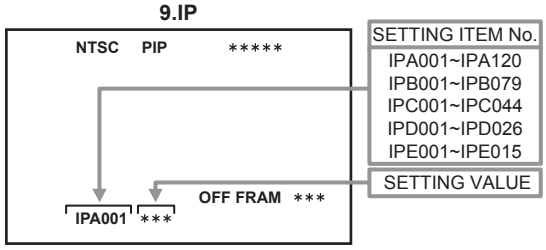
- Do not adjust (except ADM012~ADM014 : Refer to VIDEO ADJUSTMENT page)



9. IP

DIST circuit data setting

[Do not adjust]



3.7 INITIAL SETTING VALUE OF SERVICE MENU

(1) Adjustment of the SERVICE MENU is made on the basis of the initial setting values; however, the new setting values which set the screen in its optimum condition may differ from the initial setting.
(2) Do not change the initial setting values of the setting items NOT LISTED IN ADJUSTMENT.
(3) The (*1 or *2) marked items in following table, it is NO REQUIREMENT for adjustment. If values had change by the missing, set the initial values in the following table.
(4) "---" is not adjusted. Setting value is not displayed

CAUTION:
Never change the initial setting value any adjustments **except** for those that are designated in the adjustment procedures.
In case where you have made undesignated adjustments by mistake, never press the [MUTING] key on the remote control unit.
Whenever you had not pressed the [MUTING] key, you would be able to recover the initial value by switching the [POWER] key.

3.7.1 [1. PICTURE / SOUND]

AUDIO SYSTEM

Item No.	Item name	Variable range	Initial setting value	
			AV-48WP74	AV-56WP74
A01	IN LEVEL	000~015	009	009
A02	LOW SEP	000~063	035	035
A03	HI SEP	000~063	020	020
A04	BBE BASS	-128~+127	+010	+004
A05	BBE TRE	-128~+127	000	+004
A06	SURROUND	000~015	000	000
A07	BASS OFS	-128~+127	-017	-007
A08	TRE OFS	-128~+127	-011	-005
A09	AHS MVE	-128~+127	000	000
A10	AHS MSC	-128~+127	000	000
A11	***(Not display)***	000 / 001	000	000
A12	***(Not display)***	000 / 001	000	000
A13	***(Not display)***	000 / 001	000	000
A14	***(Not display)***	000 / 001	000	000
A15	***(Not display)***	000 / 001	000	000
A16	***(Not display)***	000 / 001	000	000
A17	***(Not display)***	000 / 001	000	000
A18	***(Not display)***	000 / 001	000	000
A19	***(Not display)***	000 / 001	000	000
A20	***(Not display)***	000 / 001	000	000
A21	***(Not display)***	000 / 001	000	000
A22	***(Not display)***	000 / 001	000	000
A23	***(Not display)***	000 / 001	000	000
A24	***(Not display)***	000 / 001	000	000
A25	***(Not display)***	000 / 001	000	000
A26	***(Not display)***	000 / 001	000	000
A27	***(Not display)***	000 / 001	000	000

DEFLECTION SYSTEM

Item No.	Item name	Variable range	Initial setting value	
			SINGLE PICTURE (FULL)	SPRIT / POP / MULTI
D01	V. SIZE	000~127	053	053
D02	EW	000~063	013	013
D03	H. SIZE	000~127	045	045
D04	V. SCORE	000~063	040	040
D05	V. LINE	000~031	040	040
D06	V. CENT	000~127	024	024
D07	EW.TRAP	000~127	028	028
D08	BOT.CORN	000~031	008	008
D09	TOP.CORN	000~031	008	008
D10	V. EHT	000~007	005	005
D11	H. EHT	000~007	003	003
D12	***(Not display)***	000~031	006	006
D13	***(Not display)***	000~031	000	000
D14	H. CENTER	000~255	091	091
D15	H. FREQ	000~255	182	182
D16	***(Not display)***	000 / 001	000	000
D17	***(Not display)***	000~015	000	000
D18	***(Not display)***	000~015	000	000
D19	***(Not display)***	000~015	000	000
D20	***(Not display)***	000~015	000	000
D21	***(Not display)***	000~015	000	000
D22	***(Not display)***	000 / 001	000	000
D23	***(Not display)***	000~031	000	000
D24	***(Not display)***	000~031	000	000
D25	***(Not display)***	000~015	000	000
D26	***(Not display)***	000~015	000	000
D27	***(Not display)***	000~127	000	000
D28	***(Not display)***	000~003	000	000
D29	***(Not display)***	000 / 001	000	000
D30	***(Not display)***	000 / 001	000	000
D31	***(Not display)***	000 / 001	000	000
D32	***(Not display)***	000 / 001	000	000

VIDEO SYSTEM
(NTSC / 480i / 480p)

Item No.	Item name	Variable range	NTSC		480i		480p	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S01	COLOR	000~255	095	087	081	072	074	068
S02	TINT	000~255	062	050	066	062	063	063

(720p / 1080i / HDCP)

Item No.	Item name	Variable range	720p / 1080i		HDCP			
			STANDARD	THEATER	480p		1080i / 720p	
					STANDARD	THEATER	STANDARD	THEATER
S01	COLOR	000~255	066	064	---	---	---	---
S02	TINT	000~255	064	058	---	---	---	---

(NTSC / 480i)

Item No.	Item name	Variable range	NTSC		480i	
			STANDARD	THEATER	STANDARD	THEATER
S03	BRIGHT	000~255	133	121	130	129
S04	CONTRAST	000~127	052	045	065	046

(480p / 720p / 1080i / HDCP)

Item No.	Item name	Variable range	480p / 720p / 1080i		HDCP	
			STANDARD	THEATER	STANDARD	THEATER
S03	BRIGHT	000~255	130	130	---	---
S04	CONTRAST	000~127	065	044	---	---

(NTSC / 480i)

Item No.	Item name	Variable range	NTSC		480i	
			STANDARD	THEATER	STANDARD	THEATER
S05	0 MTX SW	000~003	000	000	000	000
S06	INPUT SW	000~003	001	001	001	001
S07	B-Y	000~063	013	024	013	024
S08	R-Y	000~015	007	000	007	000
S09	G-Y MATRI	000~003	001	003	001	003

(480p / 720p / 1080i / HDCP)

Item No.	Item name	Variable range	480p / HDCP480p		1080i / 720p / HDCP1080i / HDCP720p	
			STANDARD	THEATER	STANDARD	THEATER
S05	0 MTX SW	000~003	000	000	000	000
S06	INPUT SW	000~003	001	001	000	000
S07	B-Y	000~063	016	016	022	027
S08	R-Y	000~015	007	002	004	003
S09	G-Y MATRI	000~003	001	003	002	002

(NTSC / 480i)

Item No.	Item name	Variable range	NTSC				480i			
			STANDARD		THEATER		STANDARD		THEATER	
			HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
S10	DRIVE R	000~255	073	---	---	---	---	074	---	---
S11	***(Not display)***	-128~+127	---	004	010	006	005	---	002	005
S12	DRIVE B	000~255	060	---	---	---	---	058	---	---
S13	***(Not display)***	-128~+127	---	004	-018	-007	005	---	-010	-018

(480p / 720p / 1080i)

Item No.	Item name	Variable range	480p				720p / 1080i			
			STANDARD		THEATER		STANDARD		THEATER	
			HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
S10	DRIVE R	000~255	---	---	---	---	---	074	---	---
S11	***(Not display)***	-128~+127	003	004	003	001	005	---	005	008
S12	DRIVE B	000~255	---	---	---	---	---	058	---	---
S13	***(Not display)***	-128~+127	007	004	000	-010	005	---	001	-009

(HDCP)

Item No.	Item name	Variable range	HDCP			
			STANDARD		THEATER	
			HIGH	LOW	HIGH	LOW
S10	DRIVE R	000~255	---	---	---	---
S11	***(Not display)***	-128~+127	005	0	005	008
S12	DRIVE B	000~255	---	---	---	---
S13	***(Not display)***	-128~+127	005	0	001	-009

(NTSC / 480i)

Item No.	Item name	Variable range	NTSC		480i	
			STANDARD	THEATER	STANDARD	THEATER
S14	CUTOF R	000~255	158	---	164	---
S15	***(Not display)***	-128~+127	---	-004	---	001
S16	CUTOF G	000~255	119	---	119	---
S17	***(Not display)***	-128~+127	---	0	---	000
S18	CUTOF B	000~255	185	---	190	---
S19	***(Not display)***	-128~+127	---	-004	---	000
S20	CUTOF SW R	000~003	001	---	001	---
S21	CUTOF SW G	000~003	001	---	001	---
S22	CUTOF SW B	000~003	001	---	001	---

(480p / 720p / 1080i)

Item No.	Item name	Variable range	480p / 720p / 1080i		HDCP	
			STANDARD	THEATER	STANDARD	THEATER
S14	CUTOF R	000~255	165	---	---	---
S15	***(Not display)***	-128~+127	---	-008	000	-006
S16	CUTOF G	000~255	119	---	---	---
S17	***(Not display)***	-128~+127	---	000	000	000
S18	CUTOF B	000~255	190	---	---	---
S19	***(Not display)***	-128~+127	---	-008	000	-011
S20	CUTOF SW R	000~003	001	---	---	---
S21	CUTOF SW G	000~003	001	---	---	---
S22	CUTOF SW B	000~003	001	---	---	---

(NTSC / 480i / OTHERS)

Item No.	Item name	Variable range	NTSC		480i		OTHERS SIGNAL	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S23	DC CTL	000~255	000	255	000	255	000	255

(NTSC / 480i / OTHERS SIGNAL)

Item No.	Item name	Variable range	NTSC	480i	OTHERS SIGNAL
S24	RGBLIMT	000~015	000	000	000
S25	BL STRT	000~015	015	015	015
S26	BL GAIN	000~015	008	008	008
S27	YGM LVL	000~015	000	000	000
S28	YGM GAIN	000~015	015	015	015
S29	YWD START	000~015	002	000	000
S30	YWD GAIN	000~015	005	002	003

(NTSC / 480i / 480p)

Item No.	Item name	Variable range	NTSC		480i		480p	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S31	COL OFST	000~255	---	---	---	---	---	---
S32	TNT OFST	000~255	---	---	---	---	---	---

(720p / 1080i / HDCP)

Item No.	Item name	Variable range	720p / 1080i		HDCP			
					480p		1080i / 720p	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S31	COL OFST	000~255	---	---	010	007	007	000
S32	TNT OFST	000~255	---	---	003	006	004	000

(NTSC / 480i / 480p / 720p / 1080i)

Item No.	Item name	Variable range	NTSC		480i / 480p		720p / 1080i	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S33	BRT OFST	-128~+127	---	---	---	---	---	---
S34	CNT OFST	-128~+127	---	---	---	---	---	---

(HDCP / POP / MULTI)

Item No.	Item name	Variable range	HDCP			
			480p		1080i / 720p	
			STANDARD	THEATER	STANDARD	THEATER
S33	BRT OFST	-128~+127	000	-004	-003	000
S34	CNT OFST	-128~+127	000	000	-003	-005

(SPRIT)

Item No.	Item name	Variable range	SPRIT		POP / MULTI	
			STANDARD	THEATER	STANDARD	THEATER
S33	BRT OFST	-128~+127	000	-004	---	---
S34	CNT OFST	-128~+127	000	000	---	---

Item No.	Item name	Variable range	STANDARD	THEATER
S35	DCTRN SW	000 / 001	000	000
S36	BL OFF	000 / 001	000	000
S37	YGM OFF	000 / 001	000	000
S38	ABL OFF	000 / 001	000	000
S39	ACL OFF	000 / 001	000	000

Item No.	Item name	Variable range	Initial setting value
S40	BLCNT LK	000 / 001	000
S41	YGCNT LK	000 / 001	000
S42	DCTRN PL	000 / 001	000
S43	ABL GAIN	000~015	015
S44	ABL STRT	000~015	015
S45	ACL GAIN	000~015	015
S46	ACL STRT	000~015	000

Item No.	Item name	Variable range	MULTI SCREEN		ASPECT		VIDEO STATUS	
			SPLIT	OTHERS	REGULAR	OTHERS	THEATER	OTHERS
S47	ACL EERG	000~255	255	255	255	255	255	255

(NTSC / 480i / OTHERS)

Item No.	Item name	Variable range	NTSC		480i		OTHERS SIGNAL	
			STANDARD	THEATER	STANDARD	THEATER	STANDARD	THEATER
S48	CHRM GM	000~255	128	128	128	128	128	128

(ALL SIGNAL)

Item No.	Item name	Variable range	Initial setting value
S49	OSDR DC	000~127	064
S50	OSDB DC	000~127	064
S51	BLK OFF	000 / 001	000
S52	CNT UNDR	-128~+127	-030
S53	CNT UPPR	-128~+127	+013
S54	BRT UNDR	-128~+127	-020
S55	EETH BRT	-128~+127	000
S56	EETH CNT	-128~+127	000
S57	BREE CNT	000~031	000
S58	DKEE CNT	000~031	000
S59	DREE BRT	000~127	000
S60	BREE ACL	000~255	000
S61	DKEE ACL	000~255	000
S62	VMOFF DE	-128~+127	+005
S63	VM LOW	-128~+127	-020
S64	VM MID	-128~+127	-010
S65	VM HIGH	-128~+127	+010
S66	VM L-	-128~+127	-002
S67	VM LH	-128~+127	-001
S68	VM MH	-128~+127	000
S69	VM M+	-128~+127	+001
S70	***(Not display)***	000 / 001	000
S71	***(Not display)***	000 / 001	000
S72	***(Not display)***	000 / 001	000
S73	***(Not display)***	000 / 001	000
S74	***(Not display)***	000 / 001	000

Item No.	Item name	Variable range	Initial setting value
S75	***(Not display)***	000 / 001	000
S76	***(Not display)***	000 / 001	000
S77	***(Not display)***	000 / 001	000
S78	***(Not display)***	000 / 001	000
S79	***(Not display)***	000 / 001	000
S80	***(Not display)***	000 / 001	000
S81	***(Not display)***	000 / 001	000
S82	***(Not display)***	000 / 001	000
S83	***(Not display)***	000 / 001	000
S84	***(Not display)***	000 / 001	000
S85	***(Not display)***	000 / 001	000
S86	***(Not display)***	000 / 001	000
S87	***(Not display)***	000 / 001	000
S88	***(Not display)***	000 / 001	000
S89	***(Not display)***	000 / 001	000
S90	***(Not display)***	000 / 001	000
S91	***(Not display)***	000 / 001	000
S92	***(Not display)***	000 / 001	000
S93	***(Not display)***	000 / 001	000
S94	***(Not display)***	000 / 001	000
S95	***(Not display)***	000 / 001	000
S96	***(Not display)***	000 / 001	000
S97	***(Not display)***	000 / 001	000
S98	***(Not display)***	000 / 001	000
S99	***(Not display)***	000 / 001	000

OTHERS

Item No.	Item name	Variable range	Initial setting value
F01	***(Not display)***	000~255	069
F02	***(Not display)***	000~255	000
F03	***(Not display)***	000~255	000
F04	***(Not display)***	000~255	150
F05	CATVMAX	000 / 001	001
F06	***(Not display)***	000 / 001	000
F07	***(Not display)***	000~255	000
F08	***(Not display)***	000~255	008

Item No.	Item name	Variable range	CINEMA	Except CINEMA
F09	AUTO SCR 1	000~015	001	002
F10	AUTO SCR 2	000~015	002	004
F11	AUTO SCR 3	000~015	003	004
F12	AUTO SCR 4	000~015	004	005
F13	AUTO SCR 5	000~015	005	006
F14	AUTO SCR 6	000~015	006	007
F15	AUTO SCR 7	000~015	007	007

Item No.	Item name	Variable range	Initial setting value
F16	Not use	000~127	070
F17	Not use	000 / 001	000
F18	FIX DATA	000 / 001	000
F19	***(Not display)***	000 / 001	000
F20	***(Not display)***	000~255	005
F21	***(Not display)***	000~255	002
F22	***(Not display)***	000 / 001	000
F23	***(Not display)***	000~255	000
F24	***(Not display)***	000~255	141
F25	***(Not display)***	000~255	006
F26	***(Not display)***	000~255	040
F27	***(Not display)***	000~255	040
F28	***(Not display)***	000 / 001	000

Item No.	Item name	Variable range	Initial setting value
F29	***(Not display)***	000 / 001	000
F30	***(Not display)***	000 / 001	000
F31	***(Not display)***	000 / 001	000
F32	***(Not display)***	000 / 001	000
F33	***(Not display)***	000 / 001	000
F34	***(Not display)***	000 / 001	000
F35	***(Not display)***	000 / 001	000
F36	***(Not display)***	000 / 001	000
F37	***(Not display)***	000 / 001	000
F38	***(Not display)***	000 / 001	000
F39	***(Not display)***	000 / 001	000
F40	***(Not display)***	000 / 001	000

(NTSC / 480i / 480p / 1080i / 720p)

Item No.	Item name	Variable range	NTSC	480i	480p	1080i	720p
F41	***(Not display)***	000~003	000	000	000	000	000
F42	***(Not display)***	000 / 001	000	000	000	000	000
F43	***(Not display)***	000~063	039	015	025	025	025

Item No.	Item name	Variable range	Initial setting value
F44	***(Not display)***	000 / 001	000
F45	***(Not display)***	000~007	---
F46	OUT LX	000~255	---
F47	LMT BTM	000~255	---
F48	LMT TOP	000~255	---
F49	***(Not display)***	000 / 001	---
F50	***(Not display)***	000 / 001	001
F51	***(Not display)***	000~007	003
F52	***(Not display)***	000~063	053
F53	***(Not display)***	-128~+127	000
F54	***(Not display)***	000~255	015
F55	***(Not display)***	000~255	040
F56	***(Not display)***	000~255	207
F57	***(Not display)***	000~255	128

Item No.	Item name	Variable range	Initial setting value
F58	***(Not display)***	000~255	047
F59	***(Not display)***	000 / 001	001
F60	ATT GAIN	000 / 001	000
F61	***(Not display)***	000 / 001	001
F62	***(Not display)***	000 / 001	000
F63	***(Not display)***	-128~+127	+020
F64	***(Not display)***	-128~+127	000
F65	***(Not display)***	-128~+127	-010
F66	***(Not display)***	000~007	004
F67	***(Not display)***	000~003	003
F68	***(Not display)***	000~255	126
F69	***(Not display)***	000 / 001	000
F70	***(Not display)***	000 / 001	000

3.7.2 [2.YC SEP] (All fixed)

NOTE :

Initial setting value is reference value at following condition.

INPUT SIGNAL : NTSC
ASPECT : FULL
MULTI : SINGLE
VIDEO STATUS : STANDARD
COLOR TEMPERATURE : LOW

Item No.	Item name	Variable range	Initial setting value
YCM001	***(Not display)***	000 / 001	000
YCM002	***(Not display)***	000 / 001	000
YCM003	***(Not display)***	000 / 001	000
YCM004	***(Not display)***	000~003	001
YCM005	***(Not display)***	000~255	239
YCM006	***(Not display)***	000~003	001
YCM007	***(Not display)***	000~255	239
YCM008	***(Not display)***	000 / 001	000
YCM009	***(Not display)***	000~003	000
YCM010	***(Not display)***	000 / 001	000
YCM011	***(Not display)***	000 / 001	000
YCM012	***(Not display)***	000 / 001	000
YCM013	***(Not display)***	000 / 001	000
YCM014	***(Not display)***	000~003	000
YCM015	***(Not display)***	000 / 001	000
YCM016	***(Not display)***	000~003	001
YCM017	***(Not display)***	000 / 001	001
YCM018	***(Not display)***	000~003	000
YCM019	***(Not display)***	000 / 001	000
YCM020	***(Not display)***	000 / 001	000
YCM021	***(Not display)***	000~003	002
YCM022	***(Not display)***	000~007	004
YCM023	***(Not display)***	000 / 001	001
YCM024	***(Not display)***	000 / 001	000
YCM025	***(Not display)***	000~015	005
YCM026	***(Not display)***	000~015	003
YCM027	***(Not display)***	000~003	000
YCM028	***(Not display)***	000~007	003
YCM029	***(Not display)***	000~007	002
YCM030	***(Not display)***	000~003	003
YCM031	***(Not display)***	000 / 001	000
YCM032	***(Not display)***	000~003	003
YCM033	***(Not display)***	000 / 001	001
YCM034	***(Not display)***	000 / 001	000
YCM035	***(Not display)***	000~255	096
YCM036	***(Not display)***	000 / 001	001
YCM037	***(Not display)***	000~003	001
YCM038	***(Not display)***	000~127	062
YCM039	***(Not display)***	000~127	068
YCM040	***(Not display)***	000~003	002
YCM041	***(Not display)***	000~063	016
YCM042	***(Not display)***	000 / 001	000
YCM043	***(Not display)***	000 / 001	000
YCM044	***(Not display)***	000~255	182
YCM045	***(Not display)***	000 / 001	000
YCM046	***(Not display)***	000~255	127
YCM047	***(Not display)***	000 / 001	001
YCM048	***(Not display)***	000 / 001	001
YCM049	***(Not display)***	000 / 001	001
YCM050	***(Not display)***	000 / 001	001
YCM051	***(Not display)***	000 / 001	001
YCM052	***(Not display)***	000 / 001	000
YCM053	***(Not display)***	000 / 001	001
YCM054	***(Not display)***	000~003	003
YCM055	***(Not display)***	000~003	003
YCM056	***(Not display)***	000~003	000
YCM057	***(Not display)***	000 / 001	000
YCM058	***(Not display)***	000 / 001	001
YCM059	***(Not display)***	000 / 001	001
YCM060	***(Not display)***	000 / 001	000
YCM061	***(Not display)***	000 / 001	001
YCM062	***(Not display)***	000~015	001
YCM063	***(Not display)***	000~015	004
YCM064	***(Not display)***	000~003	000
YCM065	***(Not display)***	000~063	060
YCM066	***(Not display)***	000~063	040
YCM067	***(Not display)***	000~063	025
YCM068	***(Not display)***	000~063	012
YCM069	***(Not display)***	000~063	036
YCM070	***(Not display)***	000~063	031
YCM071	***(Not display)***	000~127	031
YCM072	***(Not display)***	000 / 001	001
YCM073	***(Not display)***	000 / 001	001
YCM074	***(Not display)***	000~063	024
YCM075	***(Not display)***	000 / 001	000
YCM076	***(Not display)***	000 / 001	001
YCM077	***(Not display)***	000~063	010
YCM078	***(Not display)***	000~063	001
YCM079	***(Not display)***	000~255	000
YCM080	***(Not display)***	000~255	000
YCM081	***(Not display)***	000~255	000
YCM082	***(Not display)***	000~255	000
YCM083	***(Not display)***	000 / 001	001

Item No.	Item name	Variable range	Initial setting value
YCM084	***(Not display)***	000~063	012
YCM085	***(Not display)***	000 / 001	000
YCM086	***(Not display)***	000 / 001	000
YCM087	***(Not display)***	000~063	028
YCM088	***(Not display)***	000 / 001	001
YCM089	***(Not display)***	000~031	000
YCM090	***(Not display)***	000~003	000
YCM091	***(Not display)***	000~015	000
YCM092	***(Not display)***	000~015	000
YCM093	***(Not display)***	000~015	002
YCM094	***(Not display)***	000~063	000
YCM095	***(Not display)***	000~255	025
YCM096	***(Not display)***	000 / 001	001
YCM097	***(Not display)***	000~063	063
YCM098	***(Not display)***	000~015	008
YCM099	***(Not display)***	000~015	005
YCM100	***(Not display)***	000~015	008
YCM101	***(Not display)***	000~015	005
YCM102	***(Not display)***	000~015	000
YCM103	***(Not display)***	000~015	002
YCM104	***(Not display)***	000~015	008
YCM105	***(Not display)***	000~015	006
YCM106	***(Not display)***	000~255	010
YCM107	***(Not display)***	000~255	032
YCM108	***(Not display)***	000~255	031
YCM109	***(Not display)***	000~255	064
YCM110	***(Not display)***	000 / 001	000
YCM111	***(Not display)***	000 / 001	001
YCM112	***(Not display)***	000 / 001	001
YCM113	***(Not display)***	000 / 001	001
YCM114	***(Not display)***	000 / 001	000
YCM115	***(Not display)***	000 / 001	001
YCM116	***(Not display)***	000 / 001	000
YCM117	***(Not display)***	000 / 001	000
YCM118	***(Not display)***	000 / 001	001
YCM119	***(Not display)***	000 / 001	000
YCM120	***(Not display)***	000 / 001	000
YCM121	***(Not display)***	000~003	003
YCM122	***(Not display)***	000 / 001	000
YCM123	***(Not display)***	000~255	000
YCM124	***(Not display)***	000 / 001	000
YCM125	***(Not display)***	000~255	002
YCM126	***(Not display)***	000 / 001	000
YCM127	***(Not display)***	000 / 001	001
YCM128	***(Not display)***	000 / 001	001

Item No.	Item name	Variable range	Initial setting value
YCM129	***(Not display)***	000 / 001	001
YCM130	***(Not display)***	000~003	001
YCM131	***(Not display)***	000~255	050
YCM132	***(Not display)***	000~255	131
YCM133	***(Not display)***	000~255	055
YCM134	***(Not display)***	000~007	001
YCM135	***(Not display)***	000~255	136
YCM136	***(Not display)***	000 / 001	000
YCM137	***(Not display)***	000 / 001	001
YCM138	***(Not display)***	000~007	003
YCM139	***(Not display)***	000~255	141
YCM140	***(Not display)***	000~007	000
YCM141	***(Not display)***	000~255	014
YCM142	***(Not display)***	000 / 001	000
YCM143	***(Not display)***	000~007	005
YCM144	***(Not display)***	000~255	128
YCM145	***(Not display)***	000 / 001	000
YCM146	***(Not display)***	000 / 001	001
YCM147	***(Not display)***	000 / 001	000
YCM148	***(Not display)***	000 / 001	001
YCM149	***(Not display)***	000 / 001	000
YCM150	***(Not display)***	000 / 001	000
YCM151	***(Not display)***	000~255	136
YCM152	***(Not display)***	000 / 001	001
YCM153	***(Not display)***	000 / 001	001
YCM154	***(Not display)***	000 / 001	001
YCM155	***(Not display)***	000~003	000
YCM156	***(Not display)***	000~015	015
YCM157	***(Not display)***	000~015	004
YCM158	***(Not display)***	000 / 001	001
YCM159	***(Not display)***	000~127	004
YCM160	***(Not display)***	000 / 001	001
YCM161	***(Not display)***	000~031	000
YCM162	***(Not display)***	000 / 001	000
YCM163	***(Not display)***	000~015	003
YCM164	***(Not display)***	000~007	002
YCM165	***(Not display)***	000~031	016
YCM166	***(Not display)***	000~255	235
YCM167	***(Not display)***	000~003	000
YCM168	***(Not display)***	000~063	000
YCM169	***(Not display)***	000~015	003
YCM170	***(Not display)***	000~015	003
YCM171	***(Not display)***	000~007	000
YCM172	***(Not display)***	000~255	096
YCM173	***(Not display)***	000~007	003

Item No.	Item name	Variable range	Initial setting value
YCM174	*(Not display)*	000~255	056
YCM175	*(Not display)*	000 / 001	000
YCM176	*(Not display)*	000 / 001	000
YCM177	*(Not display)*	000~255	022
YCM178	*(Not display)*	000 / 001	001
YCM179	*(Not display)*	000 / 001	000
YCM180	*(Not display)*	000~007	004
YCM181	*(Not display)*	000~003	001
YCM182	*(Not display)*	000~003	001
YCM183	*(Not display)*	000~003	001
YCM184	*(Not display)*	000~003	001
YCM185	*(Not display)*	000~255	000
YCS001	*(Not display)*	000 / 001	000
YCS002	*(Not display)*	000 / 001	000
YCS003	*(Not display)*	000 / 001	000
YCS004	*(Not display)*	000~003	001
YCS005	*(Not display)*	000~255	239
YCS006	*(Not display)*	000~003	001
YCS007	*(Not display)*	000~255	239
YCS008	*(Not display)*	000 / 001	000
YCS009	*(Not display)*	000~003	000
YCS010	*(Not display)*	000 / 001	000
YCS011	*(Not display)*	000 / 001	000
YCS012	*(Not display)*	000 / 001	000
YCS013	*(Not display)*	000 / 001	000
YCS014	*(Not display)*	000~003	000
YCS015	*(Not display)*	000 / 001	000
YCS016	*(Not display)*	000~003	001
YCS017	*(Not display)*	000 / 001	001
YCS018	*(Not display)*	000~003	000
YCS019	*(Not display)*	000~001	000
YCS020	*(Not display)*	000~001	000
YCS021	*(Not display)*	000~003	002
YCS022	*(Not display)*	000~007	004
YCS023	*(Not display)*	000 / 001	001
YCS024	*(Not display)*	000 / 001	000
YCS025	*(Not display)*	000~015	005
YCS026	*(Not display)*	000~015	003
YCS027	*(Not display)*	000~003	000
YCS028	*(Not display)*	000~007	003
YCS029	*(Not display)*	000~007	006
YCS030	*(Not display)*	000~003	003
YCS031	*(Not display)*	000 / 001	000
YCS032	*(Not display)*	000~003	003
YCS033	*(Not display)*	000 / 001	001

Item No.	Item name	Variable range	Initial setting value
YCS034	*(Not display)*	000 / 001	000
YCS035	*(Not display)*	000~255	096
YCS036	*(Not display)*	000 / 001	001
YCS037	*(Not display)*	000~003	001
YCS038	*(Not display)*	000~127	062
YCS039	*(Not display)*	000~127	068
YCS040	*(Not display)*	000~003	001
YCS041	*(Not display)*	000~063	016
YCS042	*(Not display)*	000 / 001	000
YCS043	*(Not display)*	000 / 001	000
YCS044	*(Not display)*	000~255	144
YCS045	*(Not display)*	000 / 001	000
YCS046	*(Not display)*	000~255	100
YCS047	*(Not display)*	000 / 001	001
YCS048	*(Not display)*	000~031	000
YCS049	*(Not display)*	000~003	000
YCS050	*(Not display)*	000~015	000
YCS051	*(Not display)*	000~015	008
YCS052	*(Not display)*	000~015	001
YCS053	*(Not display)*	000~063	030
YCS054	*(Not display)*	000~255	030
YCS055	*(Not display)*	000 / 001	001
YCS056	*(Not display)*	000~063	016
YCS057	*(Not display)*	000~015	008
YCS058	*(Not display)*	000~015	005
YCS059	*(Not display)*	000~015	008
YCS060	*(Not display)*	000~015	005
YCS061	*(Not display)*	000~015	000
YCS062	*(Not display)*	000~015	002
YCS063	*(Not display)*	000~015	008
YCS064	*(Not display)*	000~015	006
YCS065	*(Not display)*	000~255	010
YCS066	*(Not display)*	000~255	032
YCS067	*(Not display)*	000~255	031
YCS068	*(Not display)*	000~255	064
YCS069	*(Not display)*	000 / 001	000
YCS070	*(Not display)*	000 / 001	001
YCS071	*(Not display)*	000 / 001	001
YCS072	*(Not display)*	000 / 001	001
YCS073	*(Not display)*	000 / 001	000
YCS074	*(Not display)*	000 / 001	001
YCS075	*(Not display)*	000 / 001	000
YCS076	*(Not display)*	000 / 001	000
YCS077	*(Not display)*	000 / 001	001
YCS078	*(Not display)*	000 / 001	000

Item No.	Item name	Variable range	Initial setting value
YCS079	***(Not display)***	000 / 001	000
YCS080	***(Not display)***	000~003	003
YCS081	***(Not display)***	000 / 001	000
YCS082	***(Not display)***	000~255	000
YCS083	***(Not display)***	000~255	000
YCS084	***(Not display)***	000~007	000
YCS085	***(Not display)***	000~255	014
YCS086	***(Not display)***	000 / 001	000
YCS087	***(Not display)***	000 / 001	001
YCS088	***(Not display)***	000 / 001	000
YCS089	***(Not display)***	000 / 001	000
YCS090	***(Not display)***	000~255	136
YCS091	***(Not display)***	000 / 001	001
YCS092	***(Not display)***	000 / 001	001
YCS093	***(Not display)***	000 / 001	001
YCS094	***(Not display)***	000~003	000
YCS095	***(Not display)***	000~015	015
YCS096	***(Not display)***	000~015	004
YCS097	***(Not display)***	000 / 001	001
YCS098	***(Not display)***	000~127	007
YCS099	***(Not display)***	000~031	000
YCS100	***(Not display)***	000 / 001	000
YCS101	***(Not display)***	000~015	003
YCS102	***(Not display)***	000~007	002
YCS103	***(Not display)***	000~031	016
YCS104	***(Not display)***	000~255	235
YCS105	***(Not display)***	000~003	000
YCS106	***(Not display)***	000~063	000
YCS107	***(Not display)***	000~015	003
YCS108	***(Not display)***	000~015	003
YCS109	***(Not display)***	000 / 001	000
YCS110	***(Not display)***	000~003	001
YCS111	***(Not display)***	000~003	001
YCS112	***(Not display)***	000~003	001
YCS113	***(Not display)***	000~003	001
YCS114	***(Not display)***	000~255	000

3.7.3 [3.WHITE BALANCE]

NOTE :

Initial setting value is reference value at following condition.

INPUT SYGNAL : NTSC
ASPECT : FULL
MULTI : SINGLE
VIDEO STATUS : STANDARD
COLOR TEMPRETURE : LOW

Item No.	Item name	Variable range	Initial setting value
BR	***(Not display)***	000~238	133
DRV R	***(Not display)***	000~255	072
DRV B	***(Not display)***	000~255	060
DRV R	***(Not display)***	000~255	188
DRV G	***(Not display)***	000~255	149
DRV B	***(Not display)***	000~255	215

3.7.4 [6.CONVER A]

Item No.	Item name	Variable range	Initial setting value
CPA01	OSD H	0~4095	147
CPA02	OSD V	0~1023	18
CPA03	FINE H	0~4095	1660
CPA04	FINE V	0~4095	50
CPA05	CAU V	0~4095	3920
CPA06	CAU H1	0~65535	0
CPA07	CAU H2	0~255	11
CPA08	FINE OFF	0 / 1	0
CCA01	C H CENT	-512~+511	0
CCA02	C H SIZE	-512~+511	-12
CCA03	C H LINE	-512~+511	-29
CCA04	C H SKEW	-512~+511	0
CCA05	C EW PIN	-512~+511	17
CCA06	C H BOW	-512~+511	0
CCA07	C V CENT	-512~+511	0
CCA08	C V SKEW	-512~+511	0
CCA09	C V SIZE	-512~+511	-95

Item No.	Item name	Variable range	Initial setting value
CBA01	LINE COMP	0~3	2
CBA02	INTER NUM	0~15	9
CBA03	INTERLACE	0 / 1	0
CBA04	ADD RATIO	0~3	0
CBA05	DAC NUM	0 / 1	1
CBA06	CKOUT FRF	0~7	0
CBA07	ODD LAVEL	0 / 1	1
CBA08	V1CNTUP	0~4095	310
CBA09	RETRACE	0 / 1	1
CBA10	RV CLAMP	0 / 1	1

Item No.	Item name	Variable range	Initial setting value
CBA11	GV CLAMP	0 / 1	1
CBA12	BV CLAMP	0 / 1	1
CBA13	RH CLAMP	0 / 1	0
CBA14	GH CLAMP	0 / 1	0
CBA15	BH CLAMP	0 / 1	0
CBA16	PATTERN H 1	0~3	1
CBA17	PATTERN W 1	0~3	1
CBA18	CURSPACE	0~3	0
CBA19	ODEV POSI	0~4095	1
CBA20	HBLKOUT	0 / 1	1
CBA21	HBLKOP	0~4095	2091
CBA22	HBLKOW	0~4095	373
CBA23	PWM1P	0~4095	0
CBA24	PWM1W	0~4095	256
CBA25	PWM2P	0~4095	0
CBA26	PWM2W	0~4095	0
CBA27	VBLK01P	0~1023	0
CBA28	VBLK01W	0~1023	1
CBA29	VBLK02P	0~1023	0
CBA30	VBLK02W	0~1023	0
CBA31	VBLK03P	0~1023	0
CBA32	VBLK03W	0~1023	0
CBA33	VBLK04P	0~1023	0
CBA34	VBLK04W	0~1023	0
CBA35	HATCH COL	0~7	2
CBA36	BORDE COL	0~7	0
CBA37	CROSS COL	0~7	0
CBA38	BLOCK COL	0~7	0
CBA39	AF1 POSV	0~2490	0
CBA40	AF1POSH	0~4095	62
CBA41	AF1VSIZE	0~255	200
CBA42	AF1HSIZE	0~511	100
CBA43	AF2POSV	0~2490	548
CBA44	AF2POSH	0~4095	200
CBA45	AF2VSIZE	0~255	100
CBA46	AF2HSIZE	0~511	200
CBA47	AF3POSV	0~2490	946
CBA48	AF3POSH	0~4095	1061
CBA49	AF3VSIZE	0~255	200
CBA50	AF3HSIZE	0~511	100
CBA51	AF4POSV	0~2490	546
CBA52	AF4POSH	0~4095	1730
CBA53	AF4VSIZE	0~255	100
CBA54	AF4HSIZE	0~511	200
CBA55	AF5POSH	0~2490	548
CBA56	AF5POSV	0~4095	1016
CBA57	AF5HSIZE	0~255	4
CBA58	AF5VSIZE	0~511	80
CBA59	AF6POSH	0~2490	505
CBA60	AF6POSV	0~4095	1056
CBA61	AF6VSIZE	0~255	80
CBA62	AF6HSIZE	0~511	4
CBA63	AF7POSV	0~2490	0
CBA64	AF7POSH	0~4095	0
CBA65	AF7VSIZE	0~255	0
CBA66	AF7HSIZE	0~511	0
CBA67	AF8POSV	0~2490	0
CBA68	AF8POSH	0~4095	0
CBA69	AF8VSIZE	0~255	0
CBA70	AF8HSIZE	0~511	0
CBA71	BL1POSV	0~2490	0
CBA72	BL1POSH	0~4095	0
CBA73	BL2POSV	0~255	0
CBA74	BL2POSH	0~511	0
CBA75	XLPOSV	0~2490	545
CBA76	XLPOSH	0~4095	1056
CBA77	XLLENV	0~255	185
CBA78	XLLENH	0~511	421
CBA79	FINE LIMT	0~2490	80
CBA80	DC LIMT	0~4095	50

3.7.5 [8.PP]

NOTE :

Initial setting value is reference value at following condition.

INPUT SIGNAL : NTSC
ASPECT : FULL
MULTI : SINGLE
VIDEO STATUS : STANDARD
COLOR TEMPERATURE : LOW

Item No.	Item name	Variable range	Initial setting value
ADM001	***(Not display)***	000~0FF	0D6
ADM002	***(Not display)***	000~00F	007
ADM003	***(Not display)***	000~003	001
ADM004	***(Not display)***	000~007	005
ADM005	***(Not display)***	000~01F	016
ADM006	***(Not display)***	000~0FF	036
ADM007	***(Not display)***	000~0FF	08A
ADM008	***(Not display)***	000~0FF	020

Item No.	Item name	Variable range	Initial setting value
ADM009	*(Not display)*	000~0FF	0FF
ADM010	*(Not display)*	000~0FF	0FF
ADM011	*(Not display)*	000~0FF	0FF
ADM012	*(Not display)*	000~07F	03A
ADM013	*(Not display)*	000~07F	02C
ADM014	*(Not display)*	000~07F	03C
ADM015	*(Not display)*	000 / 001	001
ADM016	*(Not display)*	000 / 001	001
ADM017	*(Not display)*	000 / 001	000
ADM018	*(Not display)*	000 / 001	001
ADM019	*(Not display)*	000 / 001	000
ADM020	*(Not display)*	000 / 001	000
ADM021	*(Not display)*	000 / 001	001
ADM022	*(Not display)*	000 / 001	000
ADM023	*(Not display)*	000 / 001	000
ADM024	*(Not display)*	000 / 001	001
ADM025	*(Not display)*	000 / 001	000
ADM026	*(Not display)*	000 / 001	001
ADM027	*(Not display)*	000 / 001	001
ADM028	*(Not display)*	000 / 001	001
ADM029	*(Not display)*	000 / 001	001
ADM030	*(Not display)*	000~01F	003
ADM031	*(Not display)*	000 / 001	001
ADM032	*(Not display)*	000 / 001	000
ADM033	*(Not display)*	000 / 001	001
ADM034	*(Not display)*	000~0FF	032

Item No.	Item name	Variable range	Initial setting value
PPA001	*(Not display)*	000~255	000
PPA002	*(Not display)*	000~255	000
PPA003	*(Not display)*	000~255	047
PPA004	*(Not display)*	000~255	000
PPA005	*(Not display)*	000~255	000
PPA006	*(Not display)*	000~255	001
PPA007	*(Not display)*	000~255	047
PPA008	*(Not display)*	000~255	023

Item No.	Item name	Variable range	Initial setting value
PPB001	*(Not display)*	000~031	000
PPB002	*(Not display)*	000~255	000
PPB003	*(Not display)*	000~255	000
PPB004	*(Not display)*	000~031	000
PPB005	*(Not display)*	000~255	00D
PPB006	*(Not display)*	000~255	0F8
PPB007	*(Not display)*	000~031	000

Item No.	Item name	Variable range	Initial setting value
PPB008	*(Not display)*	000~255	01B
PPB009	*(Not display)*	000~255	0D0
PPB010	*(Not display)*	000~031	000
PPB011	*(Not display)*	000~255	000

Item No.	Item name	Variable range	Initial setting value
PPB012	*(Not display)*	000~255	000
PPB013	*(Not display)*	000~031	000
PPB014	*(Not display)*	000~255	000
PPB015	*(Not display)*	000~255	000
PPB016	*(Not display)*	000~031	000
PPB017	*(Not display)*	000~255	000
PPB018	*(Not display)*	000~255	000
PPB019	*(Not display)*	000~031	000
PPB020	*(Not display)*	000~255	000
PPB021	*(Not display)*	000~255	000
PPB022	*(Not display)*	000~031	000
PPB023	*(Not display)*	000~255	000
PPB024	*(Not display)*	000~255	000
PPB025	*(Not display)*	000~031	000
PPB026	*(Not display)*	000~255	000
PPB027	*(Not display)*	000~255	000
PPB028	*(Not display)*	000~031	000
PPB029	*(Not display)*	000~255	000
PPB030	*(Not display)*	000~255	000
PPB031	*(Not display)*	000~031	000
PPB032	*(Not display)*	000~255	000
PPB033	*(Not display)*	000~255	000
PPB034	*(Not display)*	000~031	000
PPB035	*(Not display)*	000~255	000
PPB036	*(Not display)*	000~255	000

Item No.	Item name	Variable range	Initial setting value
PPC001	*(Not display)*	000~00F	000
PPC002	*(Not display)*	000~0FF	00C
PPC003	*(Not display)*	000~0FF	002
PPC004	*(Not display)*	000~00F	000
PPC005	*(Not display)*	000~0FF	000
PPC006	*(Not display)*	000~00F	000
PPC007	*(Not display)*	000~0FF	000
PPC008	*(Not display)*	000~03F	000

Item No.	Item name	Variable range	Initial setting value
PPD001	*(Not display)*	000~0FF	008
PPD002	*(Not display)*	000~00F	063
PPD003	*(Not display)*	000~0FF	063
PPD004	*(Not display)*	000~00F	0CB
PPD005	*(Not display)*	000~0FF	0C0
PPD006	*(Not display)*	000~00F	045
PPD007	*(Not display)*	000~0FF	041
PPD008	*(Not display)*	000~00F	035
PPD009	*(Not display)*	000~0FF	030
PPD010	*(Not display)*	000~00F	000
PPD011	*(Not display)*	000~0FF	024
PPD012	*(Not display)*	000~00F	001
PPD013	*(Not display)*	000~0FF	039
PPD014	*(Not display)*	000~00F	000
PPD015	*(Not display)*	000~0FF	096
PPD016	*(Not display)*	000~00F	001
PPD017	*(Not display)*	000~0FF	086
PPD018	*(Not display)*	000~00F	000
PPD019	*(Not display)*	000~0FF	024
PPD020	*(Not display)*	000~00F	001
PPD021	*(Not display)*	000~0FF	050
PPD022	*(Not display)*	000~00F	000
PPD023	*(Not display)*	000~0FF	0AA
PPD024	*(Not display)*	000~00F	001
PPD025	*(Not display)*	000~0FF	072

3.7.6 [9.IP] (All fixed)

NOTE :

Initial setting value is reference value at following condition.

INPUT SIGNAL : NTSC
ASPECT : FULL
MULTI : SINGLE
VIDEO STATUS : STANDARD
COLOR TEMPERATURE : LOW

Item No.	Item name	Variable range	Initial setting value
IPA001	*(Not display)*	000 / 001	001
IPA002	*(Not display)*	000~03F	030
IPA003	*(Not display)*	000~03F	02E
IPA004	*(Not display)*	000~03F	030
IPA005	*(Not display)*	000~003	000
IPA006	*(Not display)*	000~003	000
IPA007	*(Not display)*	000~00F	008
IPA008	*(Not display)*	000~03F	000
IPA009	*(Not display)*	000~03F	01D
IPA010	*(Not display)*	000~03F	010
IPA011	*(Not display)*	000~03F	018
IPA012	*(Not display)*	000~03F	028
IPA013	*(Not display)*	000~003	002
IPA014	*(Not display)*	000~003	002
IPA015	*(Not display)*	000~00F	00F
IPA016	*(Not display)*	000~03F	D1B
IPA017	*(Not display)*	000 / 001	001
IPA018	*(Not display)*	000~03F	0FF
IPA019	*(Not display)*	000 / 001	001
IPA020	*(Not display)*	000 / 001	001
IPA021	*(Not display)*	000~03F	01F
IPA022	*(Not display)*	000~003	000
IPA023	*(Not display)*	000~03F	008
IPA024	*(Not display)*	000 / 001	001
IPA025	*(Not display)*	000 / 001	001
IPA026	*(Not display)*	000~03F	01F
IPA027	*(Not display)*	000~003	000
IPA028	*(Not display)*	000~03F	008
IPA029	*(Not display)*	000~03F	01C
IPA030	*(Not display)*	000~00F	000
IPA031	*(Not display)*	000~007	001
IPA032	*(Not display)*	000~03F	010
IPA033	*(Not display)*	000 / 001	001
IPA034	*(Not display)*	000~03F	034
IPA035	*(Not display)*	000 / 001	001
IPA036	*(Not display)*	000~03F	00E
IPA037	*(Not display)*	000~03F	02E
IPA038	*(Not display)*	000~03F	01E
IPA039	*(Not display)*	000~003	002
IPA040	*(Not display)*	000~003	003
IPA041	*(Not display)*	000~00F	008
IPA042	*(Not display)*	000~03F	020
IPA043	*(Not display)*	000~03F	020
IPA044	*(Not display)*	000~03F	006
IPA045	*(Not display)*	000~03F	00E
IPA046	*(Not display)*	000~03F	01E
IPA047	*(Not display)*	000~003	002
IPA048	*(Not display)*	000~003	003
IPA049	*(Not display)*	000~00F	008
IPA050	*(Not display)*	000~03F	020
IPA051	*(Not display)*	000 / 001	001
IPA052	*(Not display)*	000~03F	020
IPA053	*(Not display)*	000 / 001	001
IPA054	*(Not display)*	000 / 001	001
IPA055	*(Not display)*	000~03F	020
IPA056	*(Not display)*	000~003	002

Item No.	Item name	Variable range	Initial setting value
IPA057	*(Not display)*	000~03F	020
IPA058	*(Not display)*	000 / 001	001
IPA059	*(Not display)*	000 / 001	001
IPA060	*(Not display)*	000~03F	020
IPA061	*(Not display)*	000~003	002
IPA062	*(Not display)*	000~03F	020
IPA063	*(Not display)*	000~03F	020
IPA064	*(Not display)*	000~00F	008
IPA065	*(Not display)*	000~007	002
IPA066	*(Not display)*	000~03F	020
IPA067	*(Not display)*	000 / 001	001
IPA068	*(Not display)*	000~03F	020
IPA069	*(Not display)*	000~003	000
IPA070	*(Not display)*	000~0FF	000
IPA071	*(Not display)*	000~00F	008
IPA072	*(Not display)*	000~0FF	098
IPA073	*(Not display)*	000 / 001	000
IPA074	*(Not display)*	000 / 001	000
IPA075	*(Not display)*	000~0FF	013
IPA076	*(Not display)*	000 / 001	000
IPA077	*(Not display)*	000 / 001	000
IPA078	*(Not display)*	000 / 001	000
IPA079	*(Not display)*	000 / 001	000
IPA080	*(Not display)*	000 / 001	000
IPA081	*(Not display)*	000 / 001	000
IPA082	*(Not display)*	000 / 001	000
IPA083	*(Not display)*	000 / 001	000
IPA084	*(Not display)*	000 / 001	000
IPA085	*(Not display)*	000 / 001	000
IPA086	*(Not display)*	000 / 001	000
IPA087	*(Not display)*	000 / 001	000
IPA088	*(Not display)*	000 / 001	000
IPA089	*(Not display)*	000 / 001	000
IPA090	*(Not display)*	000 / 001	000
IPA091	*(Not display)*	000~00F	000
IPA092	*(Not display)*	000~0FF	000
IPA093	*(Not display)*	000~00F	00F
IPA094	*(Not display)*	000~0FF	0FF
IPA095	*(Not display)*	000~00F	000
IPA096	*(Not display)*	000~0FF	000
IPA097	*(Not display)*	000~00F	00F
IPA098	*(Not display)*	000~0FF	0FF
IPA099	*(Not display)*	000~00F	000
IPA100	*(Not display)*	000~0FF	000
IPA101	*(Not display)*	000~00F	000

Item No.	Item name	Variable range	Initial setting value
IPA102	*(Not display)*	000~0FF	000
IPA103	*(Not display)*	000~00F	000
IPA104	*(Not display)*	000~0FF	000
IPA105	*(Not display)*	000~00F	000
IPA106	*(Not display)*	000~0FF	000
IPA107	*(Not display)*	000~00F	000
IPA108	*(Not display)*	000~0FF	080
IPA109	*(Not display)*	000~00F	000
IPA110	*(Not display)*	000~0FF	040
IPA111	*(Not display)*	000~00F	005
IPA112	*(Not display)*	000~0FF	040
IPA113	*(Not display)*	000~00F	000
IPA114	*(Not display)*	000~0FF	0C0
IPA115	*(Not display)*	000~00F	002
IPA116	*(Not display)*	000~0FF	0ET
IPA117	*(Not display)*	000 / 001	000
IPA118	*(Not display)*	000 / 001	000
IPA119	*(Not display)*	000 / 001	000
IPA120	*(Not display)*	000 / 001	000

Item No.	Item name	Variable range	Initial setting value
IPB001	*(Not display)*	000~0FF	000
IPB002	*(Not display)*	000~0FF	0D4
IPB003	*(Not display)*	000~00F	000
IPB004	*(Not display)*	000~0FF	0FC
IPB005	*(Not display)*	000~00F	003
IPB006	*(Not display)*	000~0FF	089
IPB007	*(Not display)*	000~00F	003
IPB008	*(Not display)*	000~0FF	089
IPB009	*(Not display)*	000~00F	002
IPB010	*(Not display)*	000~0FF	02D
IPB011	*(Not display)*	000~00F	001
IPB012	*(Not display)*	000~0FF	073
IPB013	*(Not display)*	000~00F	000
IPB014	*(Not display)*	000~0FF	069
IPB015	*(Not display)*	000~00F	000
IPB016	*(Not display)*	000~0FF	00E
IPB017	*(Not display)*	000~00F	000
IPB018	*(Not display)*	000~0FF	016
IPB019	*(Not display)*	000~00F	000
IPB020	*(Not display)*	000~0FF	010
IPB021	*(Not display)*	000~00F	000
IPB022	*(Not display)*	000~0FF	02D
IPB023	*(Not display)*	000~00F	000
IPB024	*(Not display)*	000~0FF	000

Item No.	Item name	Variable range	Initial setting value
IPB025	*(Not display)*	000~00F	00F
IPB026	*(Not display)*	000~0FF	000
IPB027	*(Not display)*	000~00F	005
IPB028	*(Not display)*	000~0FF	033
IPB029	*(Not display)*	000~00F	000
IPB030	*(Not display)*	000~0FF	04A
IPB031	*(Not display)*	000~00F	00F
IPB032	*(Not display)*	000~0FF	000
IPB033	*(Not display)*	000~00F	00F
IPB034	*(Not display)*	000~0FF	000
IPB035	*(Not display)*	000~00F	001
IPB036	*(Not display)*	000~0FF	000
IPB037	*(Not display)*	000 / 001	000
IPB038	*(Not display)*	000~007	000
IPB039	*(Not display)*	000~00F	000
IPB040	*(Not display)*	000~00F	003
IPB041	*(Not display)*	000~00F	000
IPB042	*(Not display)*	000~0FF	000
IPB043	*(Not display)*	000~00F	002
IPB044	*(Not display)*	000~0FF	0DB
IPB045	*(Not display)*	000~00F	000
IPB046	*(Not display)*	000~0FF	000
IPB047	*(Not display)*	000~00F	00F
IPB048	*(Not display)*	000~0FF	0FF
IPB049	*(Not display)*	000~00F	00F
IPB050	*(Not display)*	000~0FF	0FF
IPB051	*(Not display)*	000~00F	00F
IPB052	*(Not display)*	000~0FF	0FF
IPB053	*(Not display)*	000~00F	00F
IPB054	*(Not display)*	000~0FF	0FF
IPB055	*(Not display)*	000~00F	000
IPB056	*(Not display)*	000~0FF	0CE
IPB057	*(Not display)*	000~00F	00F
IPB058	*(Not display)*	000~0FF	000
IPB059	*(Not display)*	000~007	004
IPB060	*(Not display)*	000~003	000
IPB061	*(Not display)*	000~003	002
IPB062	*(Not display)*	000 / 001	000
IPB063	*(Not display)*	000~0FF	040
IPB064	*(Not display)*	000~0FF	080
IPB065	*(Not display)*	000~0FF	080
IPB066	*(Not display)*	000 / 001	000
IPB067	*(Not display)*	000~00F	000
IPB068	*(Not display)*	000~00F	000
IPB069	*(Not display)*	000~00F	000

Item No.	Item name	Variable range	Initial setting value
IPB070	*(Not display)*	000~00F	00F
IPB071	*(Not display)*	000~0FF	000
IPB072	*(Not display)*	000~00F	000
IPB073	*(Not display)*	000~0FF	000
IPB074	*(Not display)*	000 / 001	000
IPB075	*(Not display)*	000 / 001	000
IPB076	*(Not display)*	000 / 001	000
IPB077	*(Not display)*	000~00F	001
IPB078	*(Not display)*	000 / 001	001
IPB079	*(Not display)*	000~0FF	089

Item No.	Item name	Variable range	Initial setting value
IPC001	*(Not display)*	000~003	002
IPC002	*(Not display)*	000~0FF	018
IPC003	*(Not display)*	000 / 001	000
IPC004	*(Not display)*	000 / 001	000
IPC005	*(Not display)*	000~00F	000
IPC006	*(Not display)*	000~0FF	000
IPC007	*(Not display)*	000~00F	008
IPC008	*(Not display)*	000~0FF	097
IPC009	*(Not display)*	000~00F	004
IPC010	*(Not display)*	000~0FF	064
IPC011	*(Not display)*	000~00F	000
IPC012	*(Not display)*	000~0FF	000
IPC013	*(Not display)*	000~003	000
IPC014	*(Not display)*	000 / 001	000
IPC015	*(Not display)*	000 / 001	001
IPC016	*(Not display)*	000~0FF	000
IPC017	*(Not display)*	000 / 001	000
IPC018	*(Not display)*	000~07F	000
IPC019	*(Not display)*	000 / 001	000
IPC020	*(Not display)*	000~07F	001
IPC021	*(Not display)*	000~00F	000
IPC022	*(Not display)*	000~0FF	068
IPC023	*(Not display)*	000~003	000
IPC024	*(Not display)*	000~0FF	00F
IPC025	*(Not display)*	000 / 001	000
IPC026	*(Not display)*	000~07F	020
IPC027	*(Not display)*	000~001	000
IPC028	*(Not display)*	000~07F	01B
IPC029	*(Not display)*	000 / 001	001
IPC030	*(Not display)*	000 / 001	000
IPC031	*(Not display)*	000 / 001	000
IPC032	*(Not display)*	000 / 001	001
IPC033	*(Not display)*	000 / 001	000

Item No.	Item name	Variable range	Initial setting value
IPC034	***(Not display)***	000 / 001	000
IPC035	***(Not display)***	000 / 001	000
IPC036	***(Not display)***	000 / 001	000
IPC037	***(Not display)***	000 / 001	000
IPC038	***(Not display)***	000 / 001	000
IPC039	***(Not display)***	000 / 001	001
IPC040	***(Not display)***	000 / 001	000
IPC041	***(Not display)***	000 / 001	000
IPC042	***(Not display)***	000 / 001	000
IPC043	***(Not display)***	000 / 001	000
IPC044	***(Not display)***	000 / 001	000

Item No.	Item name	Variable range	Initial setting value
IPD001	***(Not display)***	000~0FF	040
IPD002	***(Not display)***	000~0FF	000
IPD003	***(Not display)***	000~0FF	000
IPD004	***(Not display)***	000~007	000
IPD005	***(Not display)***	000~0FF	014
IPD006	***(Not display)***	000~007	002
IPD007	***(Not display)***	000~0FF	034
IPD008	***(Not display)***	000 / 001	001
IPD009	***(Not display)***	000~00F	001
IPD010	***(Not display)***	000~0FF	03C
IPD011	***(Not display)***	000~00F	008
IPD012	***(Not display)***	000~0FF	086
IPD013	***(Not display)***	000~007	001
IPD014	***(Not display)***	000~007	000
IPD015	***(Not display)***	000 / 001	000
IPD016	***(Not display)***	000 / 001	000
IPD017	***(Not display)***	000~0FF	000
IPD018	***(Not display)***	000~007	000
IPD019	***(Not display)***	000~0FF	018
IPD020	***(Not display)***	000~007	002
IPD021	***(Not display)***	000~0FF	02F
IPD022	***(Not display)***	000 / 001	001
IPD023	***(Not display)***	000~00F	001
IPD024	***(Not display)***	000~0FF	03D
IPD025	***(Not display)***	000~00F	008
IPD026	***(Not display)***	000~0FF	042

Item No.	Item name	Variable range	Initial setting value
IPE001	***(Not display)***	000~255	001
IPE002	***(Not display)***	000~255	002
IPE003	***(Not display)***	000~255	001
IPE004	***(Not display)***	000~255	002
IPE005	***(Not display)***	000~255	001
IPE006	***(Not display)***	000~255	002
IPE007	***(Not display)***	000~255	001
IPE008	***(Not display)***	000~255	001
IPE009	***(Not display)***	-128~+127	+015
IPE010	***(Not display)***	-128~+127	+015
IPE011	***(Not display)***	-128~+127	+015
IPE012	***(Not display)***	-128~+127	+015
IPE013	***(Not display)***	-128~+127	-004
IPE014	***(Not display)***	-128~+127	+008
IPE015	***(Not display)***	000~015	068

3.8 ADJUSTMENT PROCEDURE

3.8.1 CHECK ITEMS

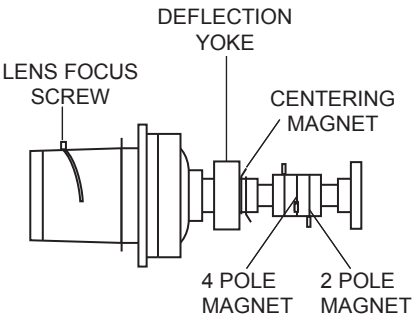
Item	Measuring instrument	Test point	Adjustment part	Description
HIGH VOLTAGE check	Signal generator High voltage meter	CRT Anode		(1) Receive NTSC whole black signal. (2) Connect the high voltage meter between CRT anode and GND. (3) Check that the high voltage range DC 31.0kV±1.0kV.
X-RAY PROTECTOR check	Resistor [6.8k ohm 1/4W ±5%]	S1 connector 2 pin : X-Ray2 3 pin : X-Ray1		(1) Receive any broadcast. (2) Connect resistor 6.8k ohm(1/4W, ±5%) between 2 pin & 3 pin of the connector S1. (3) Confirm that the X-RAY protector functions operated.

3.8.2 HORIZONTAL FREQUENCY ADJUSTMENT

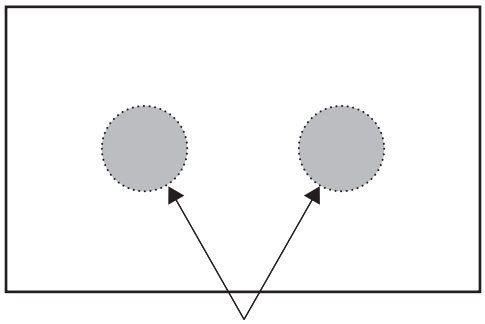
Item	Measuring instrument	Test point	Adjustment part	Description
H. FREQUENCY adjustment	Signal generator Remote control unit		[1.PICTURE/SOUND] D15 : H. FREQ. D19 : DEF. RST	(1) Receive any broadcast. (2) Press [ASPECT] key and select FULL mode. (3) Select 1. PICTURE/SOUND from SERVICE MENU. (4) Select <D19> (DEF. RST) and change the data 0 to 1. (5) While observing the screen, adjust the <D15> (H. FREQ) so that an optimum horizontal synchronization is obtained. (6) After adjustment, select <D19> and change the data 1 to 0. (7) Press [MUTING] key to memorize the set value.

3.8.3 FOCUS & BEAM SPOT ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS & BEAM SPOT adjustment	Signal generator Similar adhesive (Securing adhesive)		R Def. Yoke (DY) G Def. Yoke (DY) B Def. Yoke (DY) [PROJECTION UNIT] R LENS FOCUS screw G LENS FOCUS screw B LENS FOCUS screw [PROJECTION UNIT (LENS ASS'Y)] R SCREEN VR G SCREEN VR B SCREEN VR [FOCUS PACK] 4 pole magnet 2 pole magnet [PROJECTION UNIT (R / G / B CRT neck)] R FOCUS VR G FOCUS VR B FOCUS VR [FOCUS PACK]	(1) Receive NTSC cross-hatch signal. (2) Press [ASPECT] key and select FULL mode. (3) If the picture tilted, adjust the R, G and B DY position to mark straight horizontal line. **LENS FOCUS** (1) Makes a red single color. **NOTE :** When making a single color, It squeezes SCREEN VR in each one, or it does a lid to the lens in of the adjustment color and it makes it single color. (2) By turning the LENS FOCUS screw (in LENS ASS'Y), for optimum focus at the screen center. Check for absence of difference in the peripheral focus. If the peripheral focus is poor, slightly shift the center focus to obtain overall balanced focus. (3) In the same manner, produce green and blue single color and adjust their respective focus. (4) After adjustment, it fixes a screw. **NOTE :** There is not a difference in the focus in the top and the bottom, on either side, in the diagonal. When the difference of the focus is big, it removes a main lens, and it puts a washer between the main lens and the coupler and it adjusts it. **BEAM SPOT** (5) Receive NTSC dot pattern signal. (6) Makes a red single color. **NOTE :** When making a single color, It squeezes SCREEN VR in each one, or it does a lid to the lens in of the adjustment color and it makes it single color. (7) Turn the R FOCUS VR to set the dot diameter to about Ø30mm. (8) Turn the 4 pole magnet of the projection unit CRT neck and to where the dots at the screen center are nearly circular. (9) Return the R FOCUS VR to its original position (just focus). (10) Turn the 2 pole magnet of the CRT neck to minimize expansion of the dots. (11) In the same manner, adjust for the green and blue single color focus. (12) Secure the 4 and 2 pole magnets with similar adhesive. **CRT FOCUS** (13) Receive NTSC crosshatch signal. (14) Makes a red single color. **NOTE :** When making a single color, It squeezes SCREEN VR in each one, or it does a lid to the lens in of the adjustment color and it makes it single color. (15) Adjust the R FOCUS VR for optimum focus at the position indicated in the figure. (16) In the same manner, adjust for the green and blue single color focus. (17) After adjustment, return the SCREEN VRs to their original positions. **NOTE :** When moving screen VR, always return to original.



PROJECTION UNIT & LENS ASS'Y
(CRT adjustment location)



CRT FOCUS adjustment point

3.8.4 DEFLECTION & CONVERGENCE ADJUSTMENT

- The adjustment using the remote control unit is made on the basis of the initial setting values.
- The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- At first the adjustment in FULL mode should be done, then the data for the other ASPECT mode is corrected in the respective value at the same time.

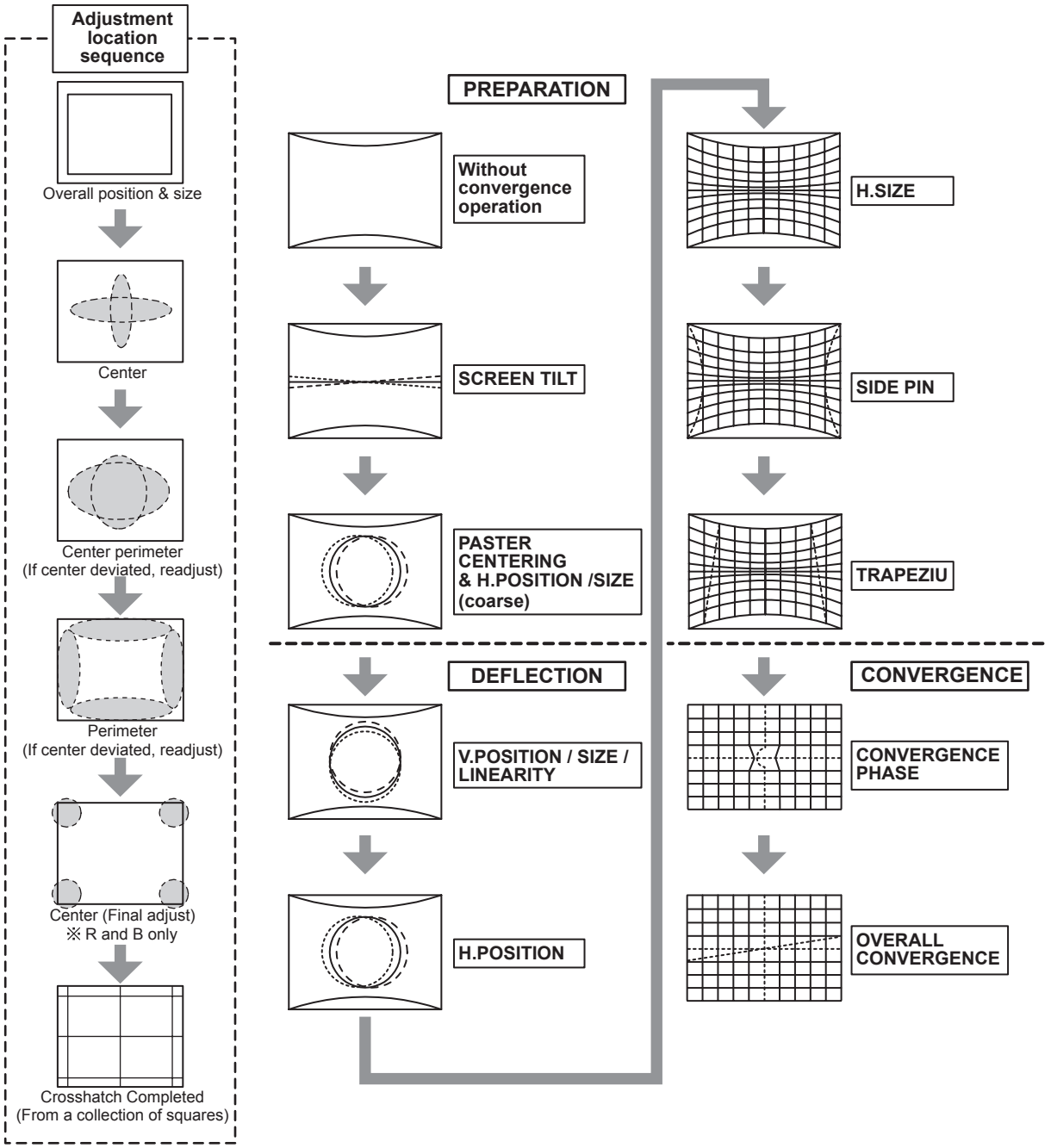
3.8.4.1 FLOWCHART OF ADJUSTMENT

CAUTION:

All adjustments of the DEFLECTION circuit for this model should be carried out under the status without convergence operation. To enter the mode without convergence operation, select 1.PICTURE/SOUND and change the data in the setting item F62 from 0 to 1. (For details, please refer to the adjustment of DEFLECTION.)

As a result, you can get the screen as shown in bellow figure. Adjust the DEFLECTION circuit in order of the steps indicated by the downward arrows.

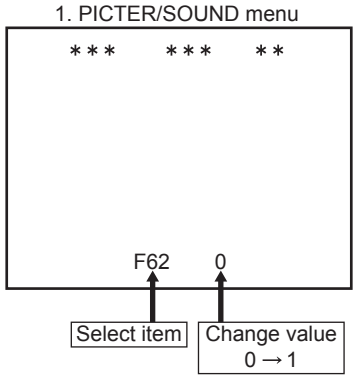
NOTE: When every adjustment of the DEFLECTION circuit has completed, start the adjustment of convergence.



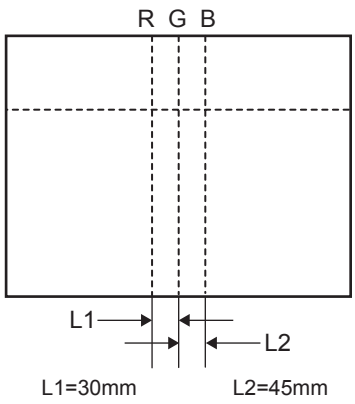
3.8.4.2 PREPARATION

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>SCREEN TILT adjustment</td><td>Signal generator

Remote control unit</td><td></td><td>[1.PICTURE/SOUND]
F62 : Without convergence operation

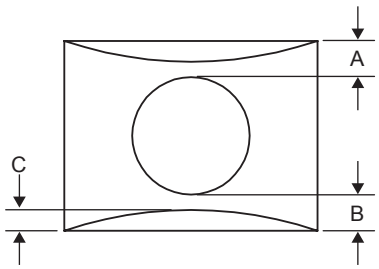
G DEF. YOKE
R DEF. YOKE
B DEF. YOKE
[PROJECTION UNIT]</td><td rowspan="2">• Confirm correct FOCUS adjustment.
(1) Receive NTSC cross-hatch signal.
(2) Select 1. PICTURE/SOUND from SERVICE MENU.
(3) Select <F62> (Without convergence operation) with [CH +] / [CH -] keys.
(4) Change the data 0 to 1, then it makes picture without convergence operation.
(5) Makes a green single color.
NOTE :
When making a single color, It squeezes SCREEN VR in each one, or it does a lid to the lens in the adjustment color and it makes it single color.
(6) Temporarily secure the G deflection yoke to the top of the neck and adjust the tilt of the deflection yoke so that the horizontal line at the center becomes flat. After adjustment, fasten the temporal screw.
(7) Adjust the tilt of the R and B deflection yokes in the same manner as for green.
NOTE :
Make sure that the adjustment of CRT FOCUS is optimized at the center and at the fringe of the center in turn. If the proper adjustment has not been done, adjust FOCUS VR again.</td></tr>
<tr><td colspan="4"> 
</td></tr>
<tr><td>RASTER CENTERING & H. POSITION / SIZE (coarse) adjustment</td><td>Signal generator

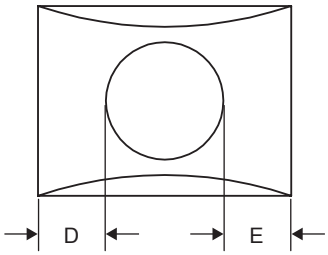
Remote control unit</td><td></td><td>[1.PICTURE/SOUND]
D03 : H. SIZE
D14 : H. CENTER
F62 : Without convergence operation

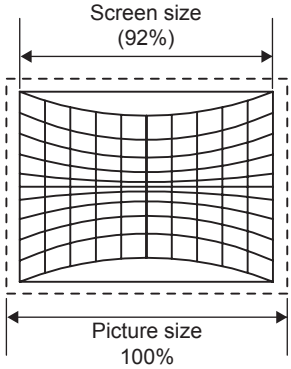
G CENTERING magnet
R CENTERING magnet
B CENTERING magnet
[DEF. YOKE]</td><td rowspan="2">(1) Receive NTSC circle (or cross-hatch) signal.
(2) Select 1. PICTURE/SOUND from SERVICE MENU.
(3) Select <F62> (Without convergence operation) with [CH +] / [CH -] keys.
(4) Change the data 0 to 1, then it makes picture without convergence operation.
(5) Makes a green single color.
NOTE :
When making a single color, it squeezes SCREEN VR in each one, or it does a lid to the lens in the adjustment color and it makes it single color.
(6) Select <D03> (H. SIZE) and shorten the level until and perpendicular amplitude of vibration with until the blanking in Left and Right and on either side can be seen.
(7) Select <D14> (H. CENTER) and adjust horizontal position to make the screen center and signal center.
(8) Select <D03> and adjust horizontal size to make screen picture approx. 92% of H-SIZE.
(9) After adjustment, select <F62> and change the data 1 to 0.
(10) Press [MUTING] key and memorize the set value.
(11) Adjust G CENTERING magnet to make horizontal and vertical line center as mechanical center of screen.
(12) Red and blue color too, are reflected by it.
(13) Using R CENTERING magnet and B CENTERING magnet, adjusts for the line of the red(L1) and the blue(L2) to become the position of the left figure.
NOTE :
Vertical center position of the red and blue are the same as green.</td></tr>
<tr><td colspan="4"> 
</td></tr>
</table>

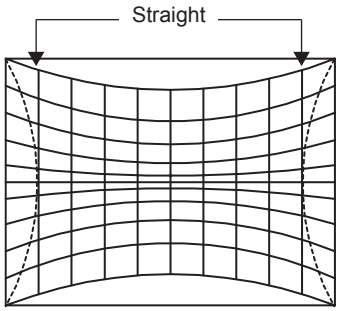
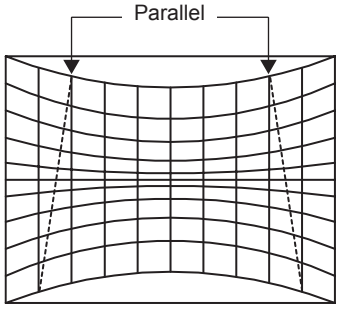
3.8.4.3 DEFLECTION ADJUSTMENT

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>V. POSITION / SIZE / LINEARITY adjustment</td><td>Signal generator

Remote control unit</td><td></td><td>[1.PICTURE/SOUND]
D01 : V. SIZE
D05 : V. LINE
D06 : V. CENT
F62 : Without convergence operation</td><td rowspan="2">• To memorize every time after finish adjustment on each mode.
(1) Receive NTSC circle pattern signal.
(2) Select FULL mode with [ASPECT] key.
(3) Select 1. PICTURE/SOUND from SERVICE MENU.
(4) Select <F62> (Without convergence operation).
(5) Change the data 0 to 1, then it makes picture without convergence operation.
(6) Select <D01> (V. SIZE), <D05> (V. LINE), <D06> (V. CENT).
(7) Adjust <D01>, <D05> and <D06> to make A = B (precision ±2mm), and adjust to make C = 55mm (AV-48WP74) / 75mm (AV-56WP74)
(8) Press [MUTING] key and memorize the set value.
NOTE :
Do not adjust <D04> (V. S-CORRECTION), if it is different vertical position after adjust vertical linearity, to adjust vertical position.</td></tr>
<tr><td colspan="4"> 
</td></tr>
<tr><td>H. POSITION adjustment</td><td>Signal generator

Remote control unit</td><td></td><td>[1.PICTURE/SOUND]
D14 : H. CENTER
F62 : Without convergence operation</td><td rowspan="2">(1) Receive NTSC circle pattern signal.
(2) Select FULL mode with [ASPECT] key.
(3) Select 1. PICTURE/SOUND from SERVICE MENU.
(4) Select <F62> (Without convergence operation).
(5) Change the data 0 to 1, then it makes picture without convergence operation.
(6) Select <D14> (H. CENTER).
(7) Adjust <D14> to make D = E as shown figure.
(8) Press [MUTING] key and memorize the set value.</td></tr>
<tr><td colspan="4"> 
</td></tr>
<tr><td>H. SIZE adjustment</td><td>Signal generator

Remote control unit</td><td></td><td>[1.PICTURE/SOUND]
D03 : H. SIZE
F62 : Without convergence operation</td><td rowspan="2">(1) Receive NTSC cross-hatch signal.
(2) Select FULL mode with [ASPECT] key.
(3) Select 1. PICTURE/SOUND from SERVICE MENU.
(4) Select <F62> (Without convergence operation).
(5) Change the data 0 to 1, then it makes picture without convergence operation.
(6) Select <D03> (H. SIZE).
(7) Adjust <D03> to make sure that the vertical screen size of the picture size is 92%.
(8) Press [MUTING] key and memorize the set value.</td></tr>
<tr><td colspan="4"> 
</td></tr>
</table>

Item	Measuring instrument	Test point	Adjustment part	Description
SIDE PIN adjustment	Signal generator Remote control unit		[1.PICTURE/SOUND] D02 : EW D08 : BOT.CORN D09 : TOP.CORN F62 : Without convergence operation	(1) Receive NTSC cross-hatch signal. (2) Select FULL mode with [ASPECT] key. (3) Select 1. PICTURE/SOUND from SERVICE MENU. (4) Select <F62> (Without convergence operation). (5) Change the data 0 to 1, then it makes picture without convergence operation. (6) Select <D02> (EW), <D08> (BOT.CORN), <D09> (TOP.CORN). (7) Adjust <D02>, <D08>, <D09> to make the vertical lines at the left and right edges of the screen straight. (8) Press [MUTING] key and memorize the set value. **NOTE :** After making adjustments, confirm that the horizontal position is properly adjusted. If the horizontal is out of alignment, readjust it. Adjust H SIZE & SIDE PIN reparably.
				
TRAPEZIUM adjustment	Signal generator Remote control unit		[1.PICTURE/SOUND] D07 : EW.TRAP F62 : Without convergence operation	(1) Receive NTSC cross-hatch signal. (2) Select FULL mode with [ASPECT] key. (3) Select 1. PICTURE/SOUND from SERVICE MENU. (4) Select <F62> (Without convergence operation). (5) Change the data 0 to 1, then it makes picture without convergence operation. (6) Select <D07> (EW.TRAP). (7) Adjust <D07> to bring the vertical lines at the right and left edges of the screen parallel. (8) Press [MUTING] key and memorize the set value. **NOTE :** After making adjustments, confirm that the horizontal position is properly adjusted. If the horizontal is out of alignment, readjust it. Adjust H SIZE & SIDE PIN reparably.
				

3.8.4.4 CONVERGENCE ADJUSTMENT(1) ••••••• RGB together

Item	Measuring instrument	Test point	Adjustment part	Description
CONVERGENCE PHASE adjustment	Signal generator Remote control unit		[6.CONVER A] CPA03 : FINE H CPA04 : FINE V CPA05 : CAU V CPA07 : CAU H2	**NOTE:** Retain the default value of this adjustment. It is not necessary to carry out the adjustment unless the image on the screen is significantly deformative. If you performed this adjustment, open the user MENU "INITIAL SETUP" and execute AUTO of CONVERGENCE after the adjustment. (1) Receive NTSC cross-hatch signal. (2) Select 6.CONVER A from SERVICE MENU. (3) Select <CPA03> (FINE H). (4) Adjust the peak A as shown in Fig. 2 agrees with the horizontal center line by using [2] & [8] keys. (5) Select <CPA04> (FINE V). (6) Adjust the peak B as shown in Fig. 3 agrees with the vertical center line by using [4] & [6] keys. (7) Select <CPA05> (CAU V). (8) Adjust the intersection point of the horizontal center line and the vertical center line agrees with the screen center by using [2] & [8]. (Fig.4) (9) Select < CPA07>(CAU H2). (10) Adjust the intersection point of the horizontal center line and the vertical center line agrees with the screen center by using [4] & [6]. (Fig.5) (11) Press [MUTING] key and memorize the set values.

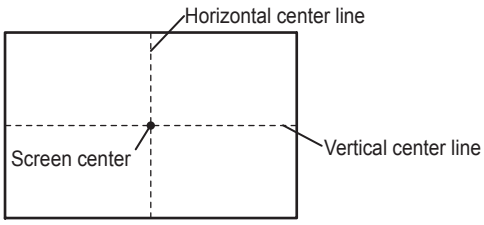


Fig. 1:Screen center

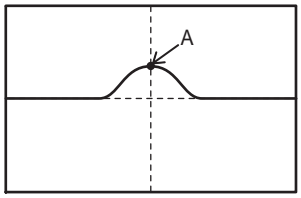


Fig. 2:CPA03<FINE H> adj.

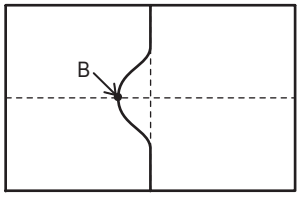


Fig. 3:CPA04<FINE V> adj.

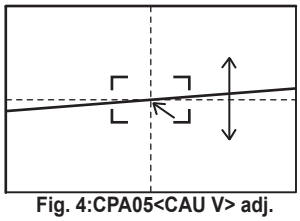


Fig. 4:CPA05<CAU V> adj.

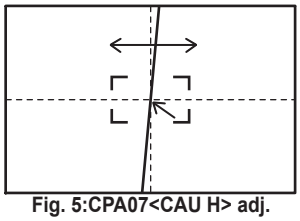
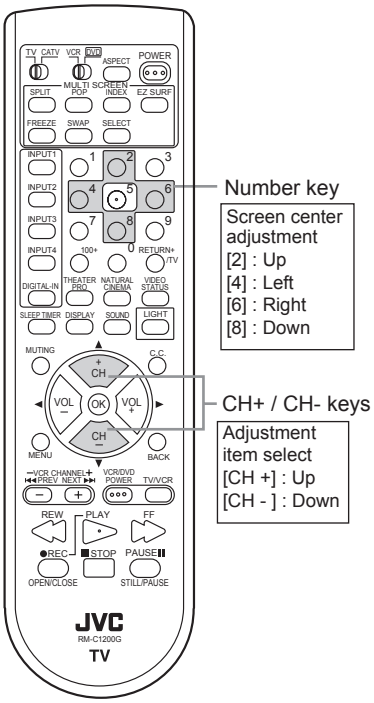


Fig. 5:CPA07<CAU H> adj.

REMOTE CONTROL KEY POSITION

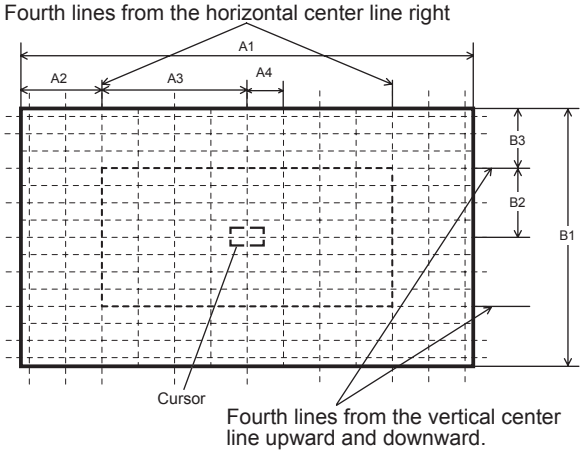


3.8.4.5 DEFLECTION ADJUSTMENT(2) ••••••• RGB respectively

Item	Measuring instrument	Test point	Adjustment part
OVERALL CONVERGENCE adjustment (1) [LINE]	Signal generator Remote control unit		[6.CONVER A] CPA08 : FINE OFF CCA01 : C H CENT CCA02 : C H SIZE CCA03 : C H LIN CCA05 : C EW PIN CCA09 : V SIZE CCA10 : V KEY CCA11 : TB PIN

For this adjustment, it is necessary to use a remote control unit (e.g. RM-C322G) with INPUT key. In order to change the adjusting items, use INPUT key. When you press INPUT key, the adjusting items will change in the order of CPA ** → CCA ** → CBA ** key.

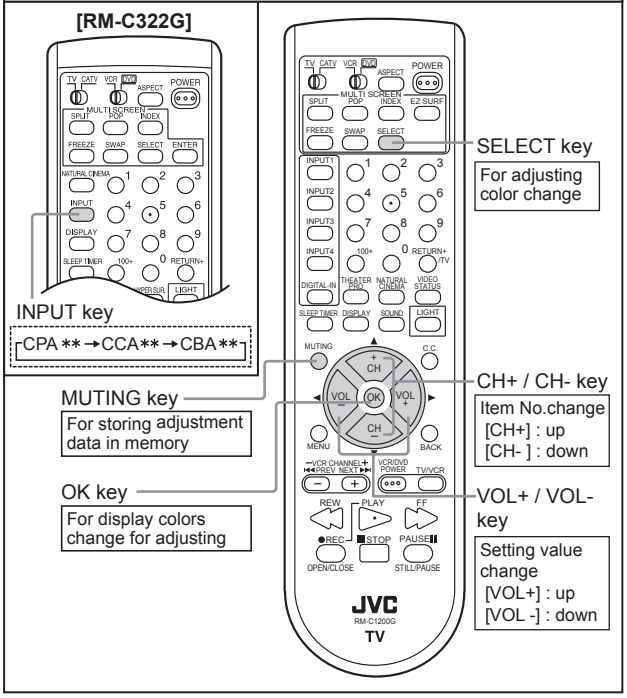
Fourth lines from the horizontal center line right



	A1	A2	A3	A4	B1	B2	B3
AV-48WP74	1060	182	348	87	600	164	136
AV-56WP74	1240	213	407	102	700	192	159

SPAN TABLE (mm)

REMOTE CONTROL KEY POSITION



NOTE:

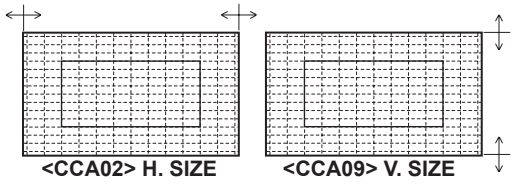
Retain the default value of this adjustment. It is not necessary to carry out the adjustment unless the image on the screen is significantly deformative. If you performed this adjustment, open the user MENU "INITIAL SETUP" and execute AUTO of CONVERGENCE after the adjustment.

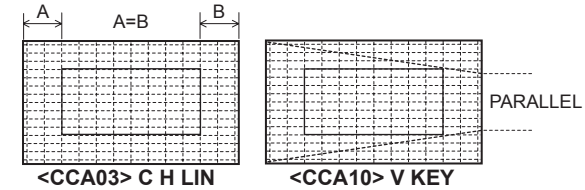
(1) Receive NTSC cross-hatch signal.
(2) Select 6.CONVER A from SERVICE MENU.
(3) Select <CPA08> (FINE OFF).
(4) Change the data 0 to1. (Clear the fine adjustment data)
(5) Press [INPUT] key to select <CCA01> (C H CENT). Then a green cross-hatch pattern for adjustment will be displayed on the screen.
(6) Make sure that the heavy lines as shown in figure are almost in alignment with the lines of the green cross-hatch pattern (reference color). If the lines are out of alignment significantly, adjust <CCA02> (C H SIZE), <CCA03> (C H LIN), <CCA05> (C EW PIN), <CCA09> (V SIZE) and <CCA11> (TB PIN), respectively. (Refer to under figure)
(7) Press [SELECT] key to change the adjusting color to red and blue, in turn, and make the adjustments in the same manner as for 6. above.
*In adjustments for red and blue, the adjustment of <CCA10> (V KEY) is also available.

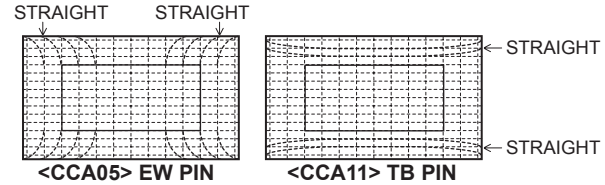
NOTE:

Press [OK] key to change the display colors. Whenever [OK] key is pressed, the menu will sequence in this order: "Two colors (adjusting color+green)"--->"Three colors (RGB)"

(8) When the adjustments have been completed, press [MUTING] key and memorize the set values.
(9) Select <CPA08>.
(10) Change the <CPA08> 1 to 0.
(11) Press [MUTING] key and memorize the set values.







Item	Measuring instrument	Test point	Adjustment part
OVERALL CONVERGENCE adjustment (2) [POINT]	Signal generator Remote control unit		[7.CONVER B]

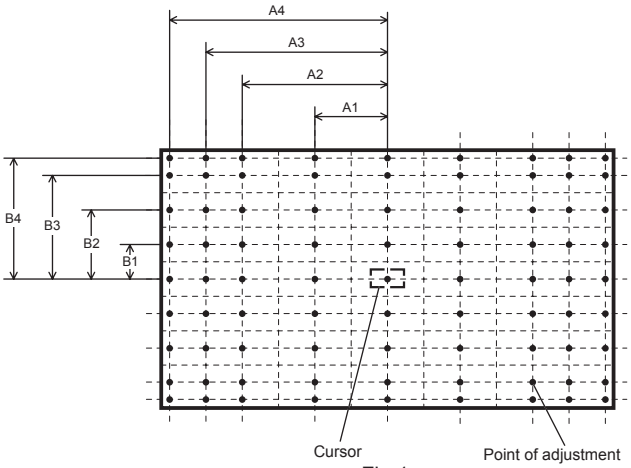


Fig.1
<CROSS-HATCH (H13 x V15 points) >

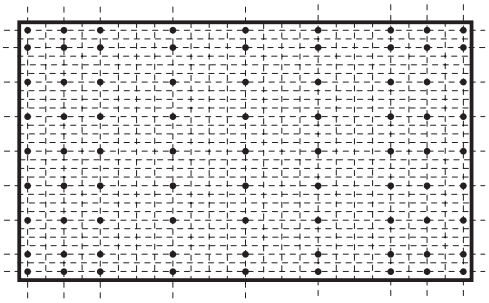


Fig.2
<FINE GRID CROSS-HATCH (H25 x V29 points) >

	A1	A2	A3	A4	B1	B2	B3	B4
AV-48WP74	174	348	435	522	82	164	246	287
AV-56WP74	204	407	509	611	96	192	287	335

SPAN TABLE (mm)

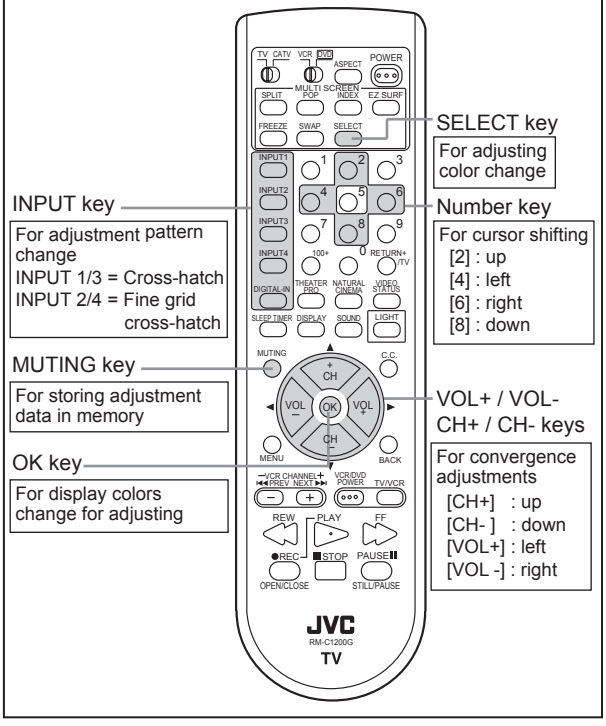
Description

NOTE:

Perform this adjustment after performing OVERALL CONVERGENCE adjustment (1).

(1) Select 7.CONVER B from SERVICE MENU. Then appear green cross-hatch pattern for adjustment. (See Fig.1)
(2) Press [2] / [4] / [6] / [8] key respectively, move the cursor to the adjusting point.
(3) Press [CH+] / [CH-] / [VOL+] / [VOL-] key, adjust the position of the adjusting point so that it is located at the place as shown in Fig1.
(4) Press [SELECT] key to select the red and blue cross-hatch patterns, respectively, and make convergence adjustments so that they align with the adjusting points of the green cross-hatch pattern (reference color).
(5) Press [OK] key to change the display colors to three colors from two colors (adjusting color + green) and make sure that the convergence has been aligned with each other.
(6) Press [INPUT 2] or [INPUT4] key. After changing the pattern to the fine grid cross-hatch pattern, make sure that the convergence has been adjusted properly.
(7) Press [MUTING] key and memorize the set values.

REMOTE CONTROL KEY POSITION



3.8.5 VIDEO ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
A-D CONVERTER OFFSET adjustment (1)	Signal generator Remote control unit		[1.PICTURE/SOUND] F44 : Image adjustment F45 : Image adjustment of mode change F47 : Minimum value B at the time of detection F48 : Maximum value A at the time of detection [8.PP] ADM012 : R offset AMD013 : G offset AMD014 : B offset	**[WHITE BALANCE LOW LIGHT ADJUSTMENT for SINGLE SCREEN]** (1) Input the 480i (DVD) whole black signal from the COMPONENT VIDEO terminal. (2) Select STANDARD mode with [VIDEO STATUS] key. (3) Select FULL mode with [ASPECT] key. (4) Select 1.PICTURE / SOUND from SERVICE MENU. (5) It goes into the zero mode screen of difference adjustment of color, using <F44>(Image adjustment) as 0 to 1, and using <F45>(Image adjustment mode change) as 0 to 3. (6) Set <F47> (minimum value B at the time of detection) to 0 and <F48> (maximum value A at the time of detection) to 0. (7) Press [MUTING] key and memorize the set value. (8) Press [BACK] key and display SERVICE MENU screen again. (9) Select 8. PP from SERVICE MENU. (10) Adjust <ADM012> (R offset setup) and <ADM014> (B offset setup) so that the adjustment result out put screen in the upper half of a screen becomes black color.(Fig.1) (11) If the screen is reddish, adjust <ADM012>(R offset setup) so that the redness is reduced to the minimum. (12) If the screen is bluish, adjust <ADM014>(B offset setup) so that the blue is reduced to the minimum. (13) Press [MUTING] key and memorize the set value. **[BRIGHTNESS ADJUSTMENT for SPLIT RIGHT SCREEN]** (1) Select STANDARD mode with [VIDEO STATUS] key. (2) Select FULL mode with [ASPECT] key. (3) Press [SPLIT] key to enter the SPLIT screen mode, then input gray scale signal on both left and right channels. (4) Select 1.PICTURE/SOUND from SERVICE MENU. (5) It goes into the Y adjustment MAX mode, using <F45> as 0 and using <F44> as 0 to 1. (6) Set <F47> to 16 and <F48> to 16. (7) Press [MUTING] key and memorize the set value. (8) Press [BACK] key and display the SERVICE MENU. (9) Select 8. PP from SERVICE MENU. (10) Adjust <ADM013> (G offset setup) so that the screen on the right upper side becomes slightly whitish rather (6% black) than whole black.(Fig.2) (11) Press [MUTING] key and memorize the set value.

Upper side of screen whole black

Fig. 1 <FULL screen>

To be slightly whitish rather than whole black

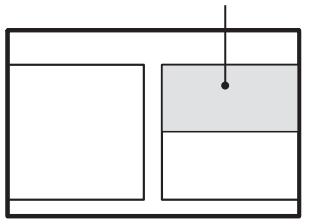


Fig. 2 <SPLIT screen>

Item	Measuring instrument	Test point	Adjustment part	Description
A-D CONVERTER OFFSET adjustment (2)	Signal generator Remote control unit		[1.PICTURE/SOUND] F44 : Image adjustment F45 : Image adjustment of mode change F47 : Minimum value B at the time of detection F48 : Maximum value A at the time of detection [8.PP] ADM012 : R offset AMD013 : G offset AMD014 : B offset	**[WHITE BALANCE LOW LIGHT ADJUSTMENT for SPLIT RIGHT SCREEN]** (1) Press [SPLIT] key to enter the SPLIT screen mode. (2) Select STANDARD with [VIDEO STATUS] key. (3) Select FULL mode with [ASPECT] key. (4) Select 1 PICTURE SOUND from SERVICE MENU. (5) It goes into the zero mode screen of difference adjustment of color, using <F45>(Image adjustment mode change) as 0 to 3 and <F44>(Image adjustment) as 0 to 1. (6) Set <F47> (minimum value B at the time of detection) to 0 and <F48> (minimum value A at the time of detection) to 0. (7) Press [MUTING] key and memorize the set value. (8) Press [BACK] key and back to SERVICE MENU. (9) Select 8.PP from SERVICE MENU. (10) Adjust <ADM012> (R offset setup) and <ADM014> (G offset setup) so that right upside screen becomes whole black. (11) Press [MUTING] key and memorize the set value. (12) Select 1.PICTURE/SOUND from SERVICE MENU. (13) Change the data of <F44> 1 to 0 and <F45> 3 to 0. (14) Press [MUTING] key and memorize the set value.

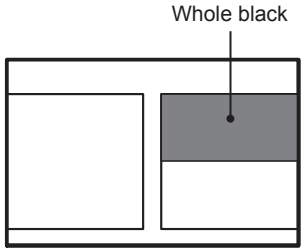
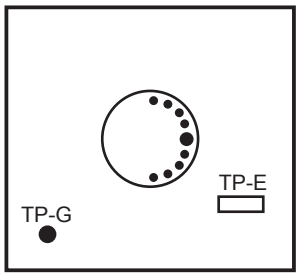
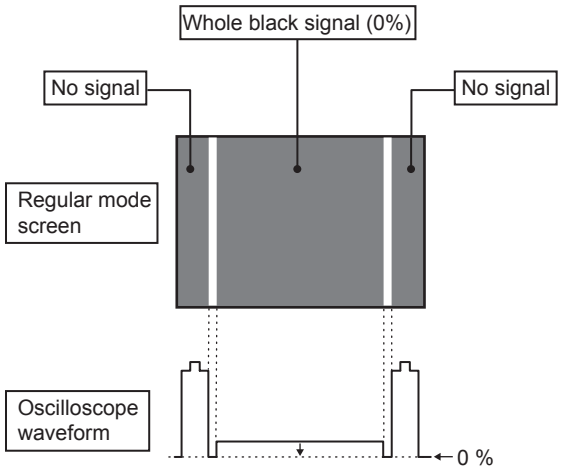


Fig. 3 <SPLIT screen>

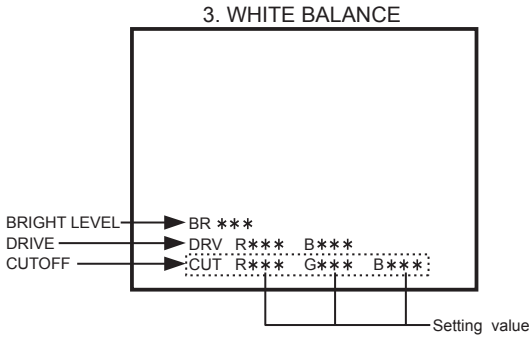
Item	Measuring instrument	Test point	Adjustment part	Description
RGB CUTOFF adjustment	Signal generator Oscilloscope Remote control unit	TP-R [R CRT SOCKET PWB] TP-G [G CRT SOCKET PWB] TP-B [B CRT SOCKET PWB]	[1.PICTURE/SOUND] S14: CUTOF R S16: CUTOF G S18: CUTOF B R SCREEN VR G SCREEN VR B SCREEN VR [FOCUS PACK]	(1) Receive NTSC whole black (0%) signal. (2) Select STANDARD mode with [VIDEO STATUS] key. (3) Select REGULAR mode with [ASPECT] key. (4) The COLOR TEMP set at the LOW mode. (5) Connect the oscilloscope to TP-G on the G CRT SOCKET PWB. (6) Select 1.PICTURE/SOUND from SERVICE MENU. (7) Select <S16> (CUTOF G). (8) Adjust <S16> so that the central 0% signal portion and the non-signal portion of both sides may become the same voltage. (9) Press [MUTING] key and memorize the set value. (10) Receive 480i component whole black (0%) signal. (11) Set <S16> data same as memorized NTSC <S16> data. (12) Set 1080i component whole black (0%) signal. (13) Set <S16> data same as memorized NTSC <S16> data. (14) Connect the oscilloscope to TP-R <S14> (CUTOF R) and adjust same manner as for 6. ~ 13. above. (15) Connect the oscilloscope to TR-B <S18> (CUTOF B).and adjust same manner as for 6. ~ 13. above. (16) Adjust SCREEN VR for RGB respectively, so that the black (3%) becomes faintly whitish. **NOTE :** If it is difficult to adjust the SCREEN precisely, adjust the SCREEN VR for one of three colors while masking other two colors.



CRT SOCKET PWB



Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE (LOW LIGHT) adjustment	Signal generator Remote control unit		[1.PICTURE/SOUND] S14: CUTOF R S16: CUTOF G S18: CUTOF B S20: CUTOF SW R S21: CUTOF SW G S22: CUTOF SW B	(1) Receive NTSC black & white pattern signal (color off). (2) Select STANDARD mode with [VIDEO STATUS] key. (3) The COLOR TEMP is set at the LOW mode. (4) Select 3.WHITE BALANCE from SERVICE MENU. (5) Increase bright level to confirm LOW-LIGHT with [VOL +] key. (6) Adjust using [4] / [7] (R CUTOFF), [6] / [9] (B CUTOFF) key so that a black portion may become black. (7) Press [MUTING] key and memorize the set values. (8) Input 480i component black & white pattern signal from COMPONENT VIDEO terminal. (9) Repeat steps 5 ~ 7 above. (10) Input 1080i component black & white signal from COMPONENT VIDEO terminal. (11) Repeat steps 5 ~ 7 above. **NOTE :** Before starting the adjustment, warm up the unit for more than 30 minutes.



SETTING VALUE

NTSC

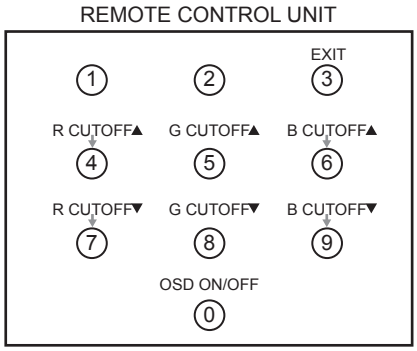
BR	133		
DRV	R 073	B 060	
CUT	R 188	G 149	B 215

480i

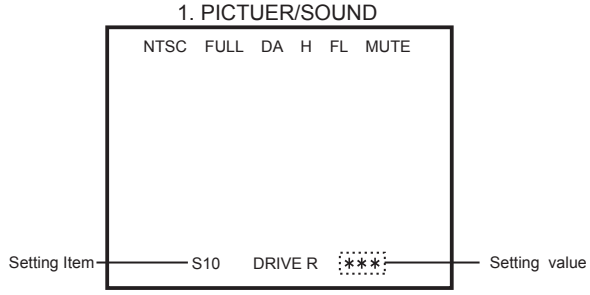
BR			
DRV	R 074	B 058	
CUT	R 194	G 149	B 210

1080i

BR			
DRV	R 074	B 058	
CUT	R 195	G 149	B 210



<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>WHITE BALANCE (HIGH LIGHT) adjustment</td><td>Signal generator

Remote control unit</td><td></td><td>[1.PICTURE/SOUND]
S10: DRIVE R
S12: DRIVE B</td><td rowspan="2">(1) Receive NTSC black & white signal (color off).
(2) Select STANDARD mode with [VIDEO STATUS] key.
(3) The COLOR TEMP is set at LOW mode.
(4) Select 1.PICTER/SOUND from SERVICE MENU.
(5) Select <S10> (DRIVE R) or <S12> (DRIVE B).
(6) Adjust <S10> or <S12> so that the natural white should be visible.
(7) Press [MUTING] key and memorize the set values.
(8) Input 480i component black & white signal from COMPONENT VIDEO terminal.
(9) Repeat steps 5 ~ 7 above.
(10) Input 1080i component black & white signal from COMPONENT VIDEO terminal.
(11) Repeat steps 5 ~ 7 above.</td></tr>
<tr><td colspan="4">1. PICTUER/SOUND
 

INITIAL SETTING VALUE
<table>
<tr><th>Signal / Item</th><th>Setting value</th><th></th><th></th></tr>
<tr><td></td><td>NTSC</td><td>480i</td><td>1080i</td></tr>
<tr><td>S10</td><td>073</td><td>074</td><td>074</td></tr>
<tr><td>S12</td><td>060</td><td>058</td><td>058</td></tr>
</table></td></tr>
<tr><td>SUB BRIGHT adjustment</td><td>Signal generator

Remote control unit</td><td></td><td>[1.PICTURE/SOUND]
S03: BRIGHT</td><td rowspan="2">(1) Receive NTSC black & white signal.
(2) Select STANDARD mode with [VIDEO STATUS] key.
(3) The COLOR TEMP is set at the LOW mode.
(4) Select 1.PICTURE/SOUND from SERVICE MENU.
(5) Select <S03> (BRIGHT).
(6) Set initial setting value. (See Table)
(7) If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness.
(8) Press [MUTING] key and memorize the set values.
(9) Select THEATER mode with [VIDEO STATUS] key.
(10) Select 1.PICTURE/SOUND from SERVICE MENU.
(11) Select <S03>.
(12) Set initial setting value. (See Table)
(13) If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness.
(14) Press [MUTING] key and memorize the set values.
(15) Input 480i component black & white signal from COMPONENT VIDEO terminal.
(16) Repeat steps 2 ~ 14 above.
(17) Input 1080i component black & white signal from COMPONENT VIDEO terminal.
(18) Repeat steps 2 ~ 14 above.</td></tr>
<tr><td colspan="4"><table>
<tr><th rowspan="2">Signal / Item</th><th colspan="6">Setting value</th></tr>
<tr><th colspan="2">NTSC</th><th colspan="2">480i</th><th colspan="2">1080i</th></tr>
<tr><td>S03</td><td>STANDARD</td><td>THEATER</td><td>STANDARD</td><td>THEATER</td><td>STANDARD</td><td>THEATER</td></tr>
<tr><td></td><td>131</td><td>121</td><td>130</td><td>129</td><td>130</td><td>130</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>SUB CONTRAST adjustment</td><td>Signal generator

Remote control unit</td><td></td><td>[1.PICTURE/SOUND]
S04: CONTRAST</td><td>(1) Receive NTSC black & white signal.
(2) Select STANDARD mode with [VIDEO STATUS] key.
(3) The COLOR TEMP is set at the LOW mode.
(4) Select 1.PICTURE/SOUND from SERVICE MENU.
(5) Select <S04> (CONTRAST).
(6) Set Initial setting value. (See Table)
(7) If the contrast is not the best with the initial setting value, make fine adjustment of the <S04> until you get the optimum contrast.
(8) Press [MUTING] key and memorize the set values.
(9) Select THEATER mode with [VIDEO STATUS] key.
(10) Select 1.PICTURE/SOUND from SERVICE MENU.
(11) Select <S04>.
(12) Set Initial setting value. (See Table)
(13) If the contrast is not the best with the initial setting value, make fine adjustment of the <S04> until you get the optimum contrast.
(14) Input 480i component black & white signal from COMPONENT VIDEO terminal.
(15) Repeat steps 2 ~ 13 above.
(16) Receive 1080i component black & white signal from COMPONENT VIDEO terminal.
(17) Repeat steps 2 ~ 13 above.</td></tr>
<tr><td colspan="4"><table>
<tr><th rowspan="2">Signal / Item</th><th colspan="6">Setting value</th></tr>
<tr><th colspan="2">NTSC</th><th colspan="2">480i</th><th colspan="2">1080i</th></tr>
<tr><td>S04</td><td>STANDARD</td><td>THEATER</td><td>STANDARD</td><td>THEATER</td><td>STANDARD</td><td>THEATER</td></tr>
<tr><td></td><td>052</td><td>045</td><td>065</td><td>046</td><td>065</td><td>044</td></tr>
</table></td></tr>
<tr><td>SUB COLOR / SUB TINT / B-Y GAIN adjustment (1)</td><td>Signal generator

Remote control unit</td><td>TP-R
TP-B
TP-E (GND)</td><td>[1.PICTURE/SOUND]
S01 : COLOR
S02 : TINT
S07 : B-Y</td><td>[Method of adjustment without measuring instrument]
(1) Receive NTSC color bar signal.
(2) Select STANDARD mode with [VIDEO STATUS] key.
(3) Select 1.PICTURE/SOUND from SERVICE MENU.
(4) Select <S01> (COLOR) or <S02> (TINT).
(5) Set the initial setting values.
(6) If the color or tint is not the best with the initial setting values, make fine adjustment until you get the best color or the best tint.
(7) Select <S07> (B-Y).
(8) Set the initial setting values.
(9) If the color bar is not clearly with the initial setting value, make fine adjustment until you get the clearly color bar.
(10) Press [MUTING] key and memorize the set values.
(11) Select THEATER mode with [VIDEO STATUS] key.
(12) Select <S01> or <S02> .
(13) Set the initial setting values.
(14) If the color or tint is not the best with the initial setting values, make fine adjustment until you get the best color or the best tint.
(15) Select <S07>.
(16) Set the initial setting values.
(17) If the color bar is not clearly with the initial setting value, make fine adjustment until you get the clearly color bar.
(18) Press [MUTING] key and memorize the set values.
(19) Input 480i component color bar signal from COMPONENT VIDEO terminal.
(20) Repeat steps 2 ~ 18 above.
(21) Input 480p component color bar signal from COMPONENT VIDEO terminal.
(22) Repeat steps 2 ~ 18 above.
(23) Input 1080i component color bar signal from COMPONENT VIDEO terminal.
(24) Repeat steps 2 ~ 18 above.</td></tr>
</table>

Item	Measuring instrument	Test point	Adjustment part
SUB COLOR / SUB TINT / B-Y GAIN Adjustment (2)	Signal generator Oscilloscope Remote control unit	TP-R TP-B TP-E (GND)	[1.PICTURE/SOUND] S01 : COLOR S02 : TINT S07 : B-Y

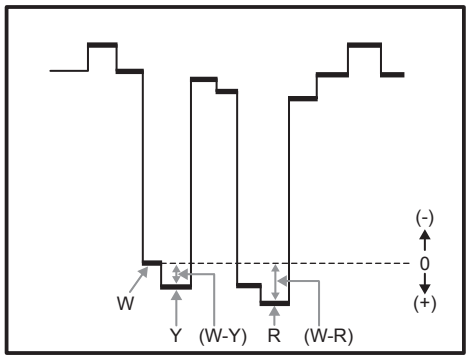


Fig.1

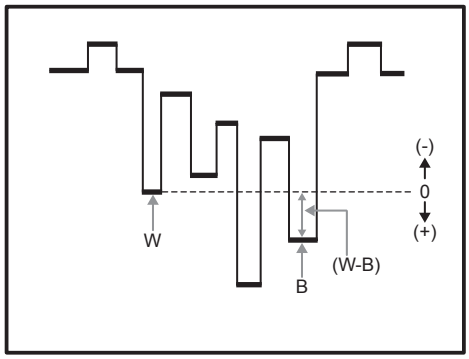


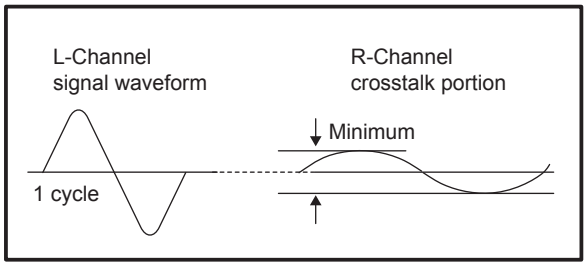
Fig.2

Setting item / Signal	Setting value A [V]		Setting value B [V]		Setting value C [V]	Setting value D [V]
	STANDARD		THEATER		STANDARD	THEATER
	S01 (W-R)	S02 (W-Y)	S01 (W-R)	S02 (W-Y)	S07 (W-B)	S07 (W-B)
NTSC	+28	+14	+19	+7	+10	+18
480i	+19	+11	+7	+1	-17	+2
480p	+19	+14	+11	+2	-25	+12
1080i	+7	+6	+5	+7	-24	-9

[Method of adjustment with measuring instrument]

(1) Receive NTSC color bar signal.
(2) Select STANDARD mode with [VIDEO STATUS] key.
(3) Connect the oscilloscope to TP-R on the R CRT SOCKET PWB.
(4) Select 1.PICTURE/SOUND from SERVICE MENU.
(5) Select <S01> (COLOR) or <S02> (TINT).
(6) Adjust <S01> and <S02> to be following setting value A[V]. (Refer to the bellow table)
(7) Press [MUTING] key and memorize the set values.
(8) Select THEATER mode with [VIDEO STATUS] key.
(9) Adjust <S01> and <S02> to be following setting value B[V] same as above. (Refer to the bellow table)
(10) Press [MUTING] key and memorize the set values.
(11) Select STANDARD mode with [VIDEO STATUS] key.
(12) Connect the oscilloscope to TP-B on the B CRT SOCKET PWB.
(13) Adjust <S07> (B-Y) to be setting value C[V]. (Refer to the bellow table)
(14) Press [MUTING] key and memorize the set values.
(15) Select THEATER mode with [VIDEO STATUS] key.
(16) Adjust <S07> to be setting value D[V]. (Refer to the bellow table)
(17) Press [MUTING] key and memorize the set values.
(18) Confirm that LOW-LIGHT is not different after adjusting COLOR, TINT and B-Y GAIN. If it is green or magenta, to adjust LOW-LIGHT again. If adjust again, to set offset value again.
(19) Press [MUTING] key and memorize the set values.
(20) Input 480i component color bar from COMPONENT VIDEO terminal.
(21) Repeat steps 2 ~ 19 above.
(22) Input 480p component color bar from COMPONENT VIDEO terminal.
(23) Repeat steps 2 ~ 19 above.
(24) Input 1080i component color bar from COMPONENT VIDEO terminal.
(25) Repeat steps 2 ~ 19 above.

Item	Measuring instrument	Test point	Adjustment part	Description
MTS INPUT LEVEL check	Remote control unit		[1.PICTURE/SOUND] A01 : IN LEVEL	(1) Select 1.PICTURE / SOUND from SERVICE MENU. (2) Select <A01> (IN LEVEL). (3) Verify that<A01> is set at its initial setting value.
MTS SEPARATION adjustment	TV audio multiplex signal generator Oscilloscope Remote control unit	AUDIO OUT L output R output	[1.PICTURE/SOUND] A02: LOW SEP. A03 : HI SEP.	(1) Input stereo L signal (300Hz) from the TV audio multiplex signal generator to the antenna terminal. (2) Connect an oscilloscope to L OUTPUT pin of the AUDIO OUT, and display one cycle portion of the 300Hz signal. (3) Change the connection of the oscilloscope to R OUTPUT pin of the AUDIO OUT, and enlarge the voltage axis. (4) Select <A02> (LOW SEP.). (5) Set the initial setting value of <A02>. (6) Adjust <A02> so that the stroke element of the 300Hz signal will become minimum. (7) Change the signal to 3kHz, and similarly adjust <A03> (HI SEP.).



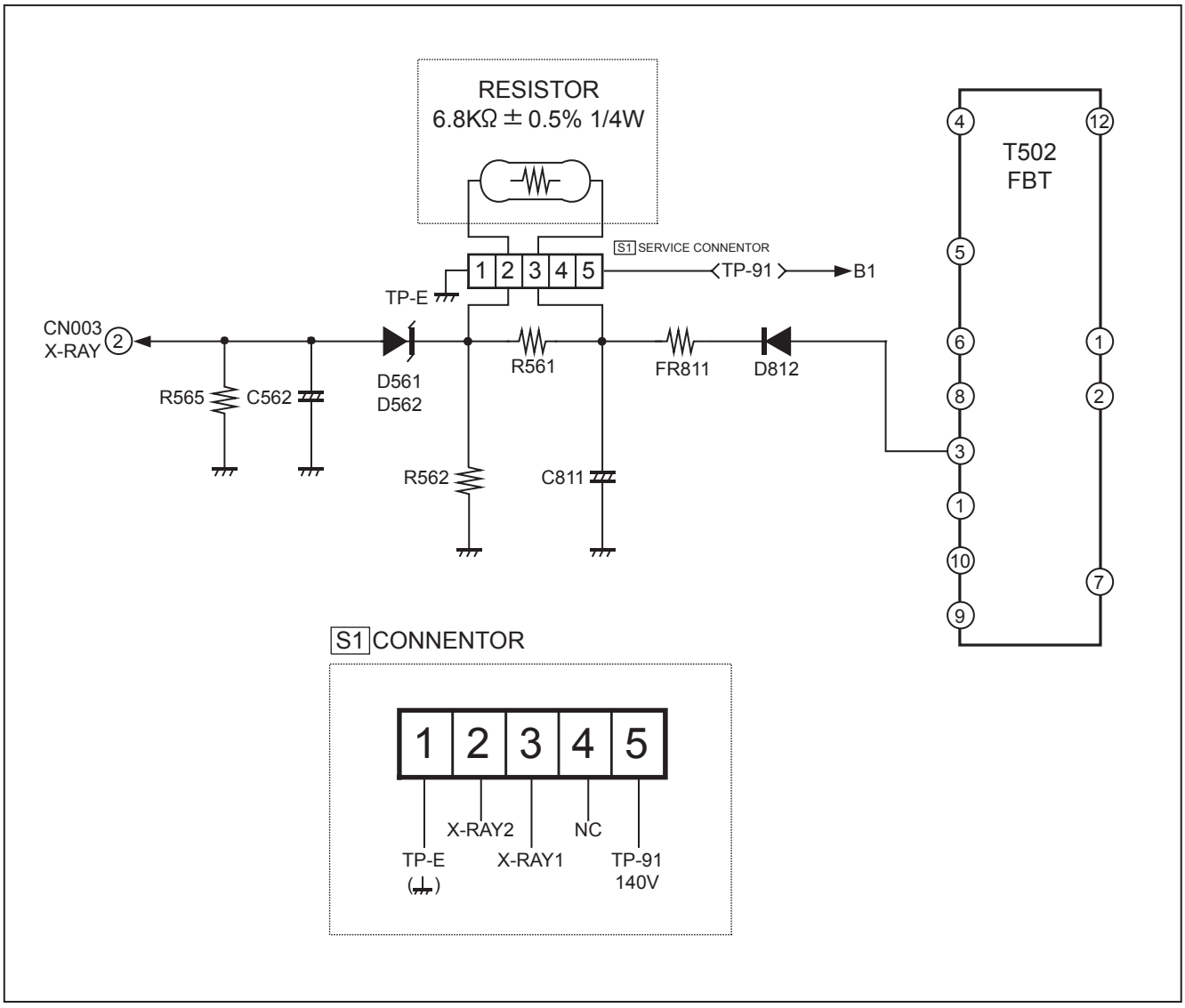
3.9 HOW TO CHECK THE HIGH VOLTAGE HOLD DOWN CIRCUIT

3.9.1 HIGH VOLTAGE HOLD DOWN CIRCUIT

After repairing the high voltage hold down circuit.
This circuit shall be checked to operate correctly.

3.9.2 CHECKING OF THE HIGH VOLTAGE HOLD DOWN CIRCUIT

(1) Turn the power switch ON.
(2) As shown in figure bellow, set the resistor (between S1 connector 2 & 3).
(3) Make sure that the screen picture disappears (no raster).
(4) Temporarily unplug the power cord.
(5) Remove the resistor (between S1 connector 2 & 3).
(6) Again plug the power cord, make sure that normal pictures is displayed on the screen.



SECTION 4
TROUBLESHOOTING

4.1 SELF CHECK FUNCTIONS

- This model has self-check functions that inform of the failure of the TV by detecting abnormality.
- Operational state is always monitored and the identified is memorized on the record.

4.1.1 HOW TO ENTER THE SELF-CHECK MODE

(1) Set the <SLEEP TIMER 30MIN> with [SLEEP TIMER] key. (Fig.1)
(2) During the <SLEEP TIMER 30MIN> display, press [DISPLAY] key and [VIDEO STATUS] key at the same time.
(3) Then <TEST MODE> screen is displayed. (Fig.2)
(4) Press [4] key then <SELF-CHECK> screen is appear. (Fig.3)

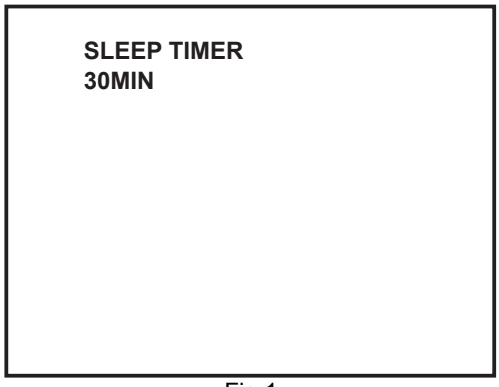


Fig.1

4.1.2 HOW TO EXIT FROM THE SELF-CHECK MODE

(1) By using the remote control unit, turn the power off. At this time, the failure record is cleared.
(2) Take off the AC plug from the wall outlet. At this time, the failure record is not cleared.

4.1.3 SELF-CHECK DISPLAY

The self-check results are shown on the following display.
Method of indication when the raster is not displayed (Fig.3).

Each failure is shown by turning POWER LED on and off at specified intervals.

Item	POWER LED ON / OFF intervals
X-ray protection	Turning on and off 0.1-second intervals
B1 over-current protection	Turning on and off 1-second intervals
Low B short protection	Turning on and off 2-second intervals

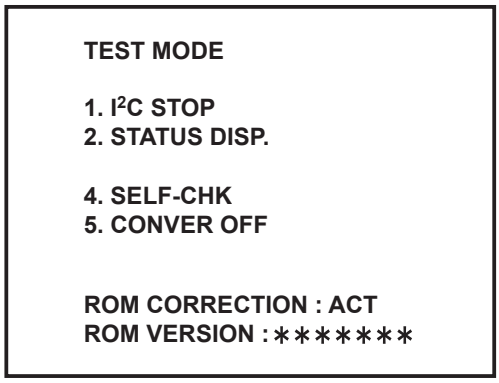


Fig.2

4.1.4 EXPLANATION FOR ACTIVATION OF SELF-CHECK FUNCTIONS

- For X-ray protection, B1 over-current protection and low B short protection, the power of the TV is turned off if NG is detected.
  Immediately after the power is turned off, POWER LED will be turning on and off.
  When the power is turned off, you cannot turn the power on again until the AC plug is taken out and put in again.
- The latest failure is stored on the record at the end.
  The failure record for each check item is counted to the number of 9 at the maximum, When more than 9 failures are stored on the record, the counter remains stopped at 9.
- SYNC is neither counted nor stored in memory.
- Because of the timing of Vcc start-up and shut-down of the IC connecting to the I2C bus during which the power is turned on and off, the operation may be interpreted as an error.
  In order to avoid the misinterpretation, the self-check functions should be started at about 3 seconds after the power is turned on.

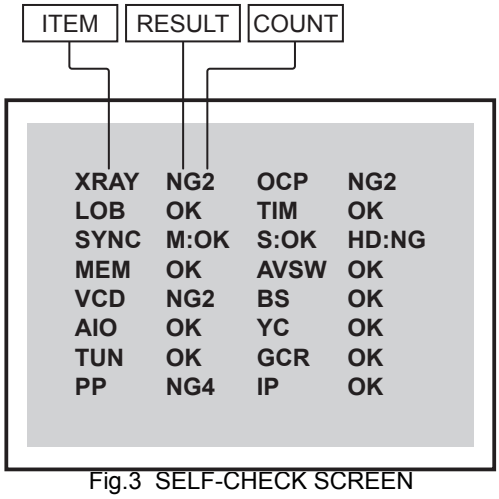


Fig.3 SELF-CHECK SCREEN

Indication	Check item	Details of detection	Method of detection
XRAY	X-ray radiation protection	Operation of X-ray protection circuit. D561, D562 : POWER & DEF PWB	At about 3 seconds after the power is turned on, the self-check function starts. If NG is detected for 200ms, the power is turned off automatically.
OCP	B1 over-current protection	An B1 over-current is detected. Q971 : POWER & DEF PWB	At about 3 seconds after the power is turned on, the self-check function starts. If NG is detected for 200ms, the power is turned off automatically.
LOB	Low B short protection	Operation of low B short protection circuit. Q1961(5V), Q1962(9V) : MAIN PWB	At about 3 seconds after the power is turned on, the self-check function starts. If NG is detected for 200ms, the power is turned off automatically.
TIM	Timer	The AC power frequency is changed as follows : 50Hz ---> 60Hz 60Hz ---> 50Hz	Periodically check the power frequency by counting the AC pulse and monitor whether or not the frequency is changed except for the time immediately after resetting.
SYNC	Presence or absence of synchronized signal	Presence of synchronized signal. HD : HD signal M : NTSC main signal S : NTSC sub signal IC1301(AN5392) : MI-COM & DIST MODULE PWB	When entering the self-check mode, "OK" is shown. While running the mode with picture signal, if the synchronized signal is disappeared, "NG" is shown.
MEM	Memory (EEP-ROM)	ACK is returned when I^2C traffic is carried out. IC1703(MEMORY) : MI-COM & DIST MODULE PWB	The state is monitored every time when I^2C traffic is carried out. Then the state is counted as a failure if ACK is not returned.
AVSW	AV switch	Ditto IC1301(AN15852A) and IC1501(CXA2069Q) : MAIN PWB	Ditto
VCD	Video / chroma process (RGB process)	Ditto IC1301(AN5392) : MI-COM & DIST MODULE PWB	Ditto
BS	Broadcast satellite tuner	Not used	Not used
AIO	Audio process (MTS decode / audio control)	Ditto UPC1851BCU IC0201(CXA2134Q-X) : RECEIVER PWB	Ditto
YC	3D YC separation	Ditto IC3001(MN82832) : MI-COM & DIST MODULE PWB	Ditto
TUN	RF tuner	Ditto Main & sub RF tuner	Ditto
GCR	Ghost reduction	Not used	Not used
PP	Picture & Picture (Multi-picture)	Ditto IC101(TMS57128GJG) : MI-COM & DIST MODULE PWB	Ditto
IP	DIST process	Ditto IC201(JCC5054) : MI-COM & DIST MODULE PWB	Ditto

AV-48WP74
AV-56WP74

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Printed in Japan
20034WPC

AV-48WP74, AV-56WP74
STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal : Colour bar signal

(2)Setting positions of each knob/button and variable resistor : Original setting position when shipped

(3)Internal resistance of tester :DC 20kΩ/V

(4)Oscilloscope sweeping time :H ⇒ 20μs/div
:V ⇒ 5ms/div
:Others ⇒ Sweeping time is specified

(5)Voltage values :All DC voltage values

∗ Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board :R1209 → R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

No unit	:[Ω]
K	:[k Ω]
M	:[M Ω]

● Rated allowable power

No indication	:1/ 16 [W]
Others	:As specified

● Type

No indication	:Carbon resistor
OMR	:Oxide metal film resistor
MFR	:Metal film resistor
MPR	:Metal plate resistor
UNFR	:Uninflammable resistor
FR	:Fusible resistor

∗ Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

1 or higher	:[pF]
less than 1	:[μF]

● Withstand voltage

No indication	:DC50[V]
Others	:DC withstand voltage [V]
AC indicated	:AC withstand voltage [V]

∗ Electrolytic Capacitors
47/50[Example]:Capacitance value [μF]/withstand voltage[V]

● Type

No indication	:Ceramic capacitor
MM	:Metalized mylar capacitor
PP	:Polypropylene capacitor
MPP	:Metalized polypropylene capacitor
MF	:Metalized film capacitor
TF	:Thin film capacitor
BP	:Bipolar electrolytic capacitor
TAN	:Tantalum capacitor

(3)Coils

No unit	:[μH]
Others	:As specified

(4)Power Supply

:B1


:B2 (12V)


:9V


:5V

∗ Respective voltage values are indicated

(5)Test point

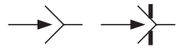

:Test point


:Only test point display

(6)Connecting method

:Connector

:Wrapping or soldering


:Receptacle

(7)Ground symbol

:LIVE side ground

:ISOLATED(NEUTRAL) side ground


:EARTH ground


:DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND.Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts will be broken.

◇ **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

NOTE

◇ **Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.**
When ordering parts, please use the numbers that appear in the Parts List.

AV-48WP74
AV-56WP74

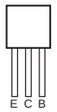
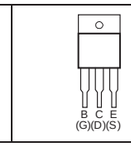
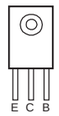
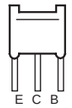
CONTENTS

USING P.W. BOARD

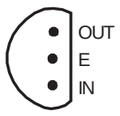
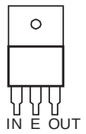
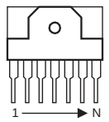
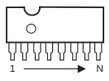
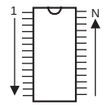
	AV-48WP74	AV-56WP74
MAIN P.W. BOARD	SSB-1070A-M2	SSB-1069A-M2
RECEIVER P.W. BOARD	SSB0R368A-M2	←
R CRT SOCKET P.W. BOARD	SSB-3168A-M2	←
G CRT SOCKET P.W. BOARD	SSB-3268A-M2	←
B CRT SOCKET P.W. BOARD	SSB-3368A-M2	←
VM P.W. BOARD	SSB-7268A-M2	←
DEF OSC P.W. BOARD	SSB0H068A-M2	←
POWER & DEF P.W. BOARD	SSB-2070A-M2	SSB-2069A-M2
LINE FILTER PWB P.W. BOARD	SSB-9068A-M2	←
CONVEREGENCE OUT P.W. BOARD	SSB-5068A-M2	←
FRONT RELAY P.W. BOARD	SSB0L268A-M2	←
REMOCON SENSOR P.W. BOARD	SSB-8068A-M2	←
FRONT CONTROL P.W. BOARD	SSB0L068A-M2	←

SEMICONDUCTOR SHAPES

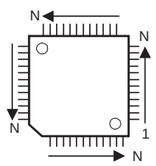
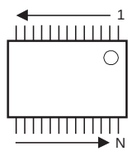
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

IC

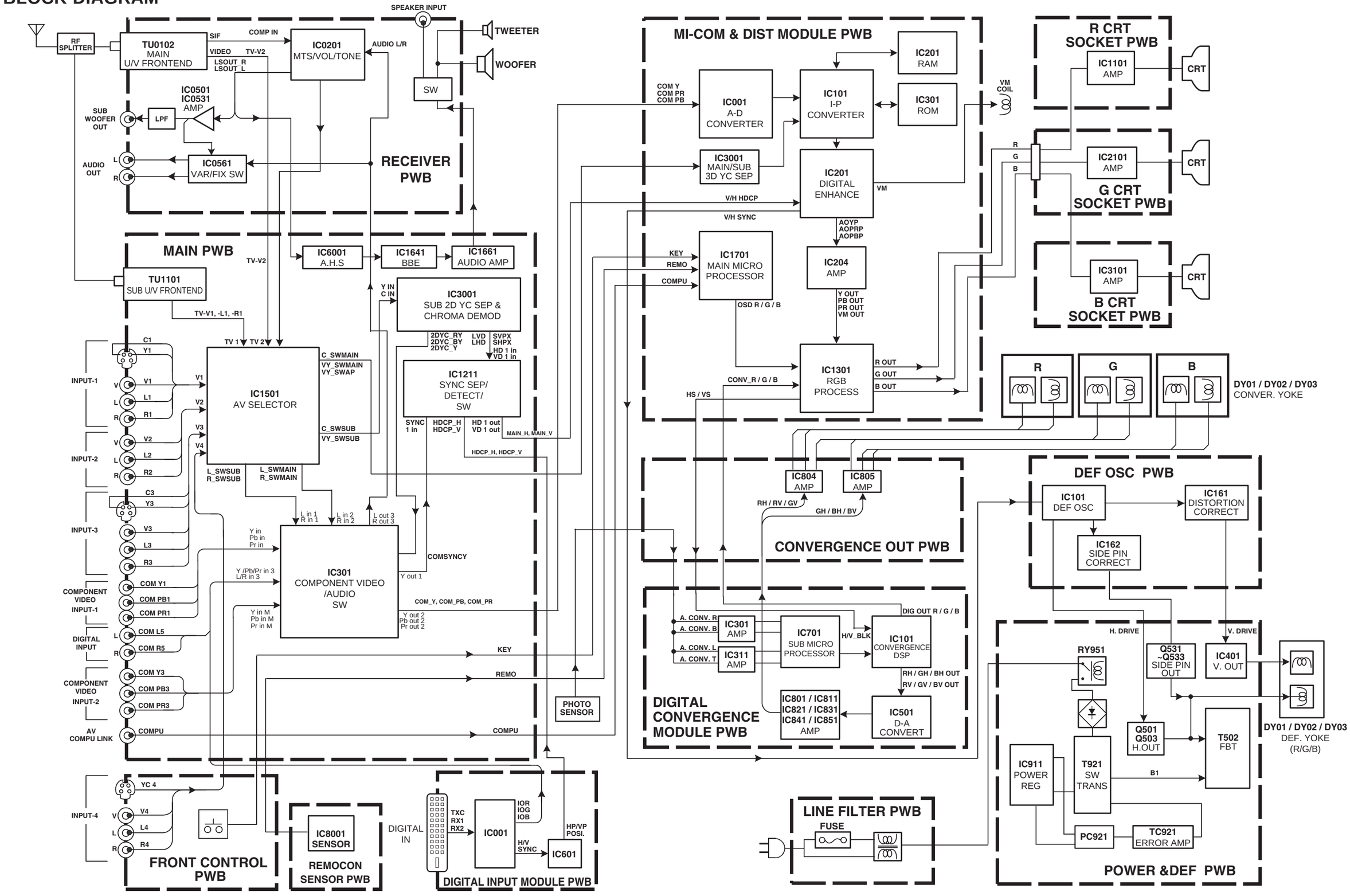
BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

TOP VIEW		
		

AV-48WP74 AV-48WP74
AV-56WP74 AV-56WP74

BLOCK DIAGRAM



CIRCUIT DIAGRAMS [RECEIVER UNIT]

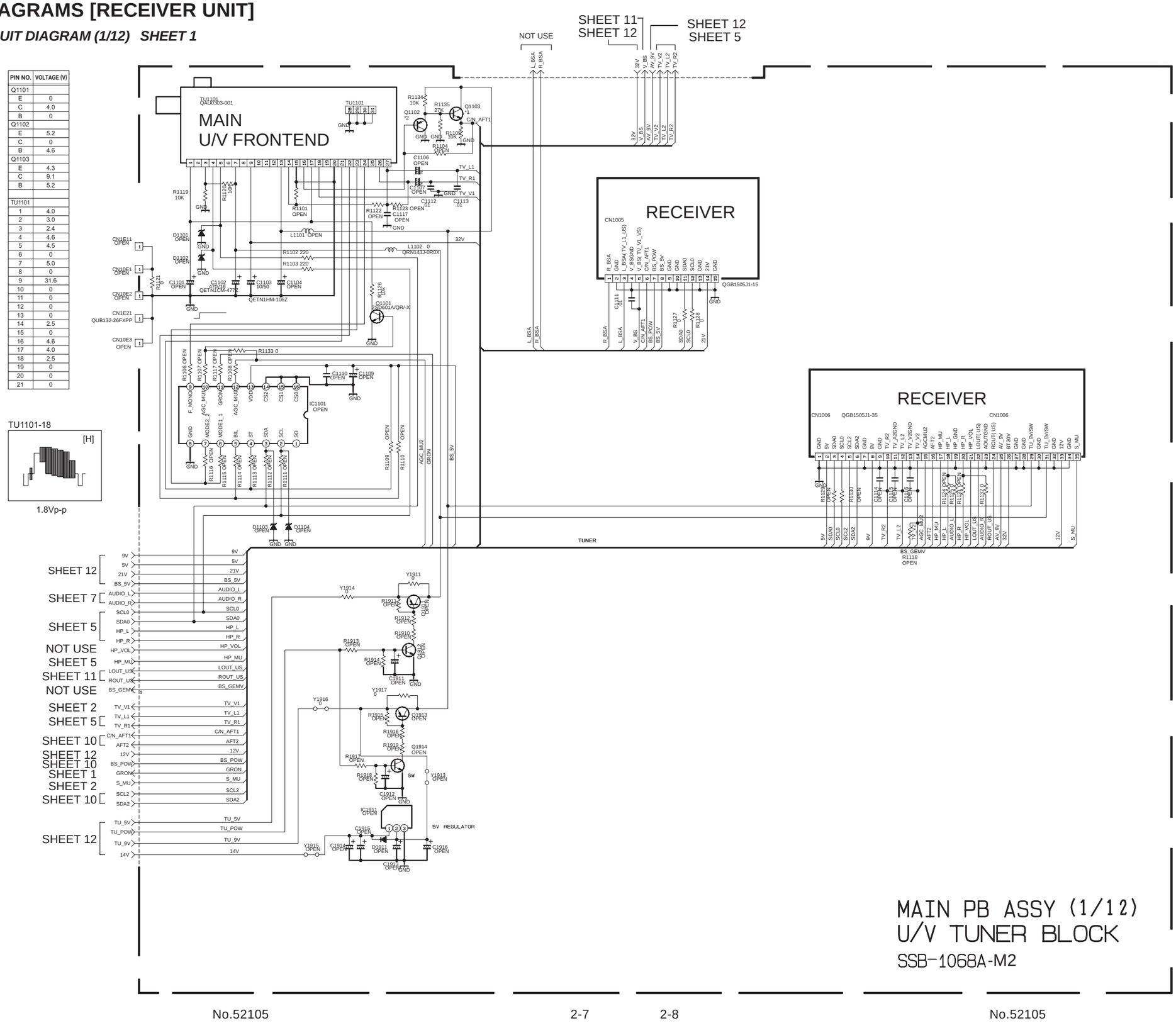
MAIN PWB CIRCUIT DIAGRAM (1/12) SHEET 1

PIN NO.	VOLTAGE (V)
Q1101	
E	0
C	4.0
B	0
Q1102	
E	5.2
C	0
B	4.6
Q1103	
E	4.3
C	9.1
B	5.2
TU1101	
1	4.0
2	3.0
3	2.4
4	4.6
5	4.5
6	0
7	5.0
8	0
9	31.6
10	0
11	0
12	0
13	0
14	2.5
15	0
16	4.6
17	4.0
18	2.5
19	0
20	0
21	0

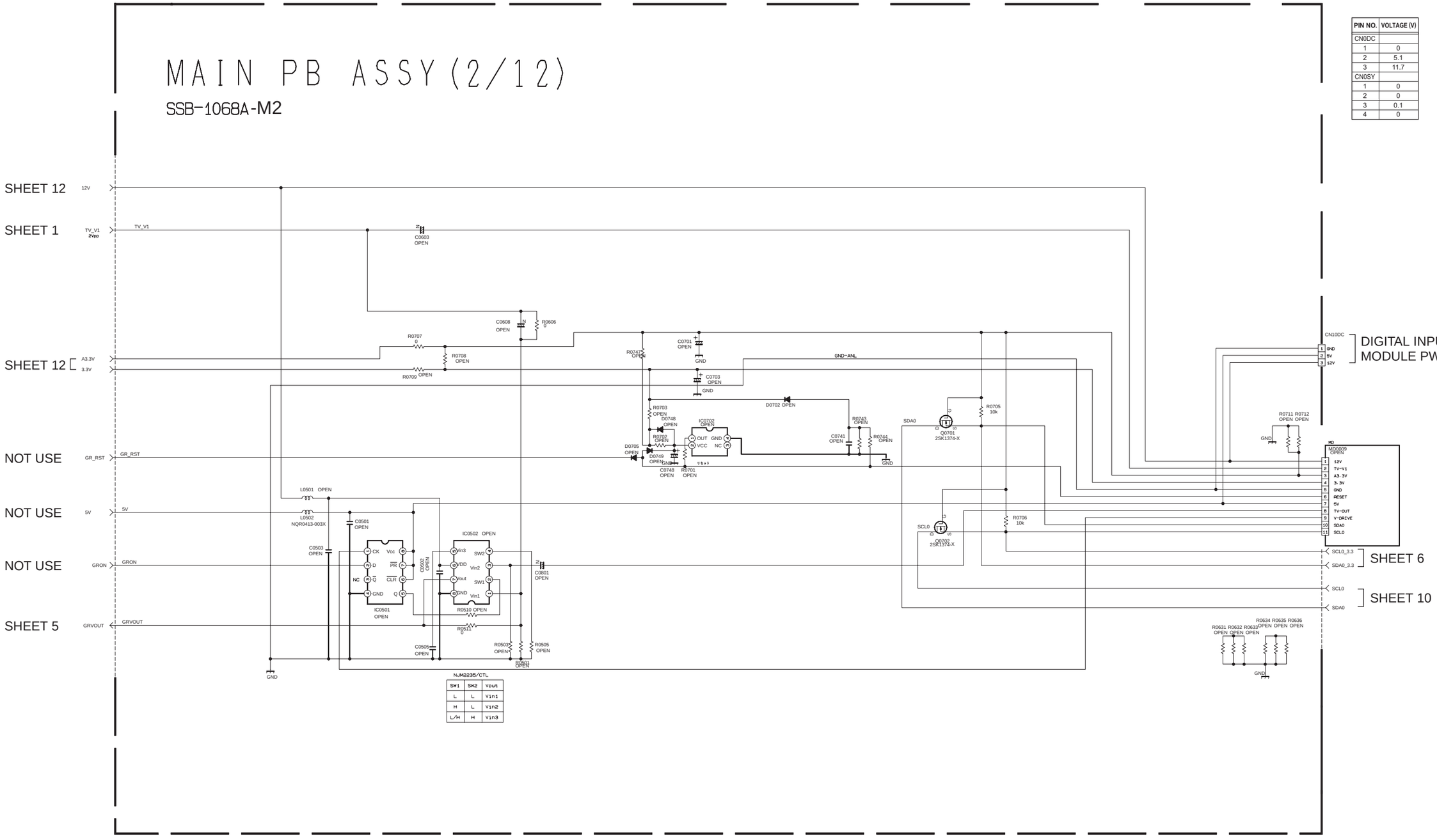
TU1101-18

[H]

1.8Vp-p

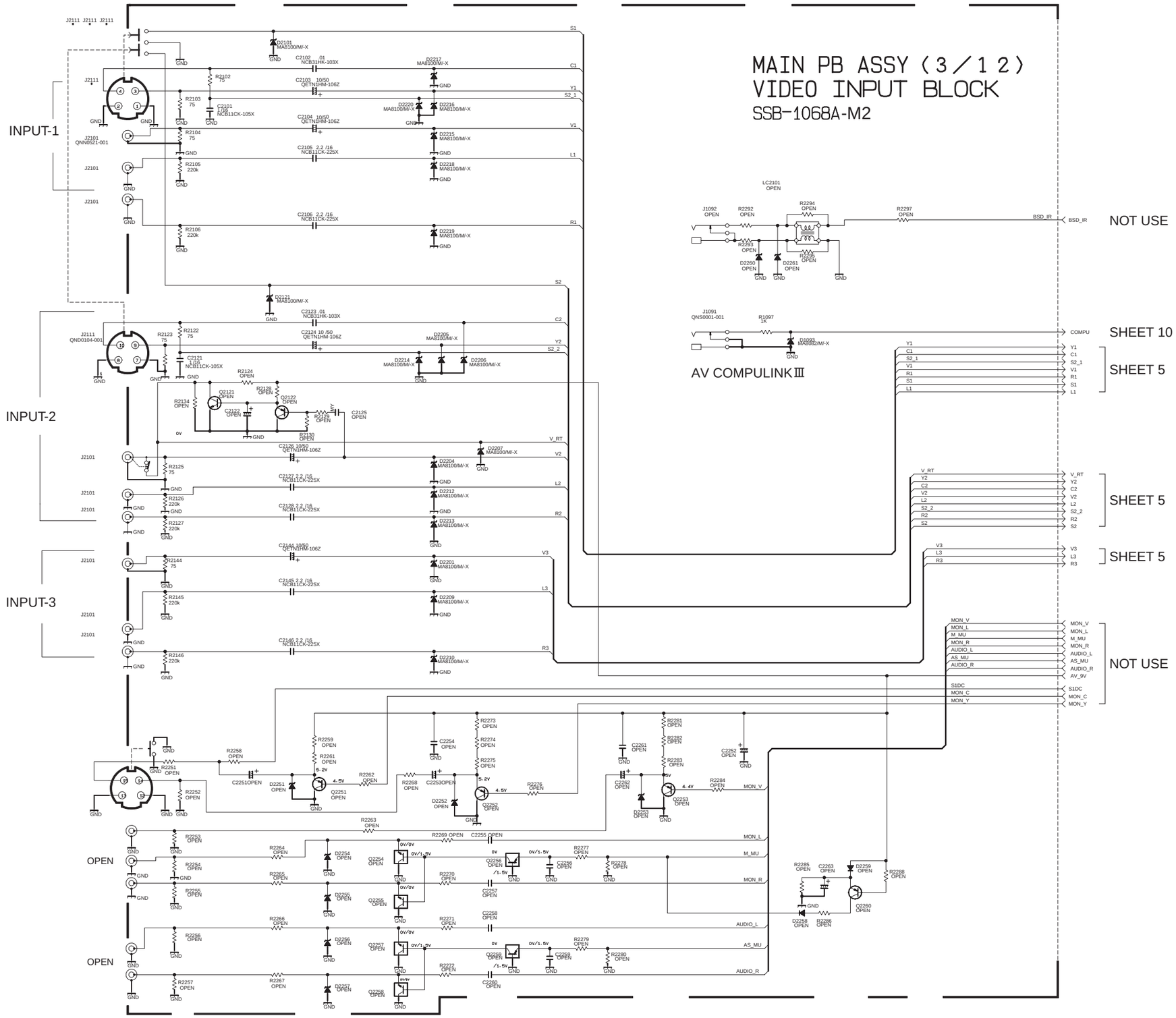


MAIN PWB CIRCUIT DIAGRAM (2/12) SHEET 2

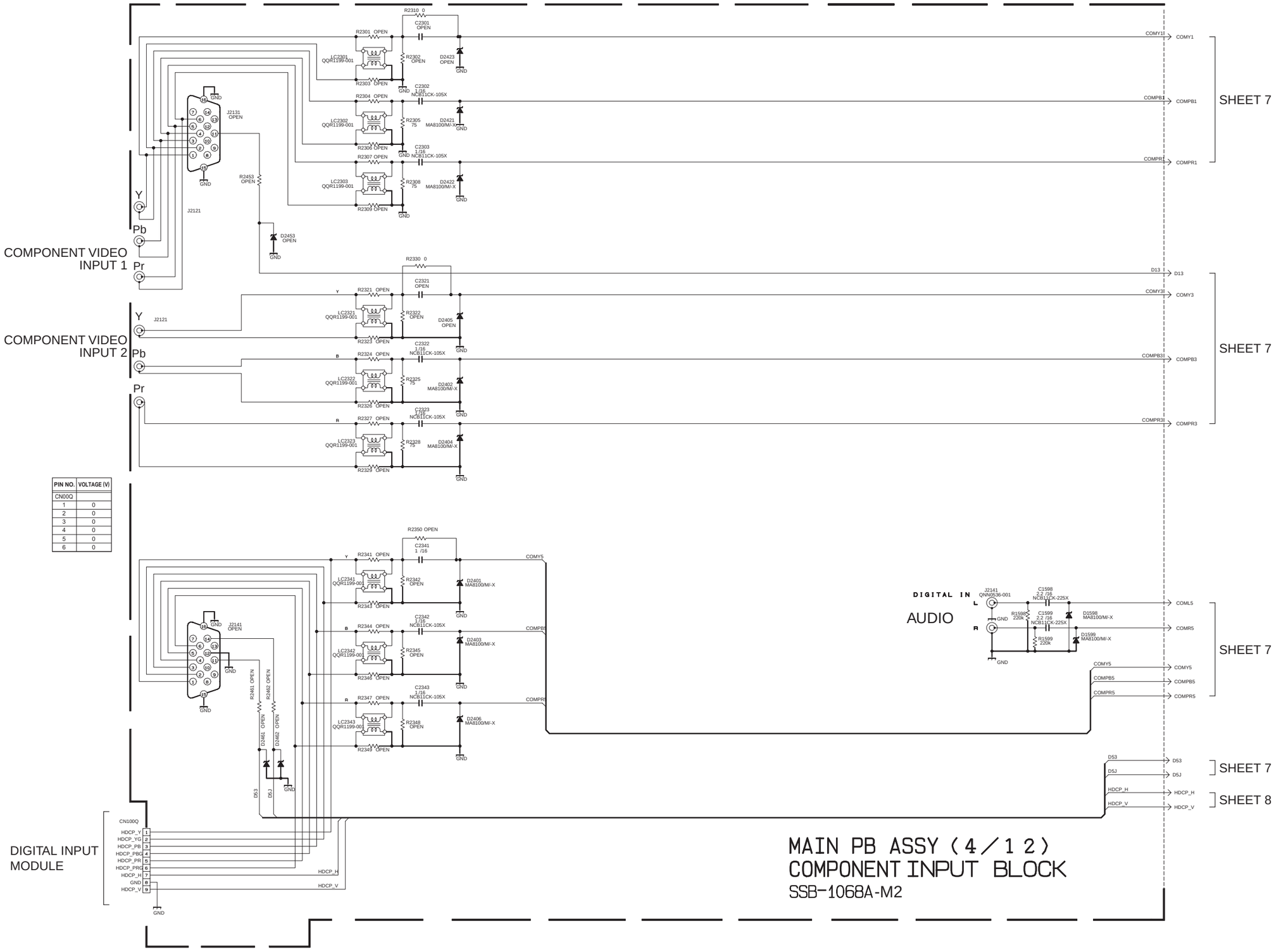


PIN NO.	VOLTAGE (V)
CN0DC	
1	0
2	5.1
3	11.7
CN0SY	
1	0
2	0
3	0.1
4	0

MAIN PWB CIRCUIT DIAGRAM (3/12) SHEET 3

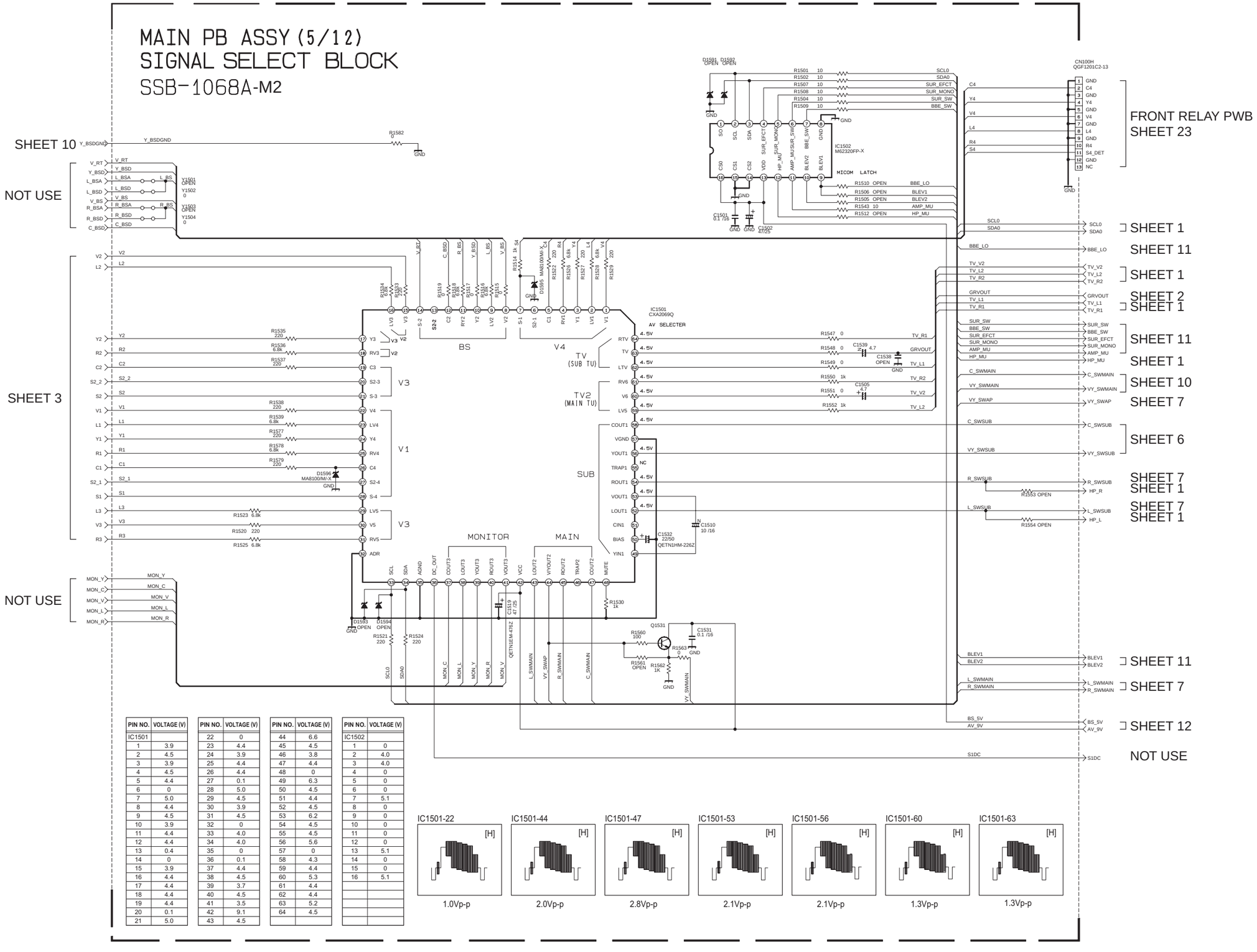


MAIN PWB CIRCUIT DIAGRAM (4/12) SHEET 4



PIN NO.	VOLTAGE (V)
CN00Q	
1	0
2	0
3	0
4	0
5	0
6	0

MAIN PWB CIRCUIT DIAGRAM (5/12) SHEET 5



PIN NO.	VOLTAGE (V)
IC1501	
1	3.9
2	4.5
3	3.9
4	4.5
5	4.4
6	0
7	5.0
8	4.4
9	4.5
10	3.9
11	4.4
12	4.4
13	0.4
14	0
15	3.9
16	4.4
17	4.4
18	4.4
19	4.4
20	0.1
21	5.0

PIN NO.	VOLTAGE (V)
22	0
23	4.4
24	3.9
25	4.4
26	4.4
27	0.1
28	5.0
29	4.5
30	3.9
31	4.5
32	0
33	4.0
34	4.0
35	0
36	0.1
37	4.4
38	4.5
39	3.7
40	4.5
41	3.5
42	9.1
43	4.5

PIN NO.	VOLTAGE (V)
44	6.6
45	4.5
46	3.8
47	4.4
48	0
49	6.3
50	4.5
51	4.4
52	4.5
53	6.2
54	4.5
55	4.5
56	5.6
57	0
58	4.3
59	4.4
60	5.3
61	4.4
62	4.4
63	5.2
64	4.5

PIN NO.	VOLTAGE (V)
IC1502	
1	0
2	4.0
3	4.0
4	0
5	0
6	0
7	5.1
8	0
9	0
10	0
11	0
12	0
13	5.1
14	0
15	0
16	5.1

MAIN PWB CIRCUIT DIAGRAM (6/12) SHEET 6

PIN NO.	VOLTAGE (V)
IC3001	
1	0
2	3.3
3	3.3
4	2.5
5	3.3
6	2.1
7	5.9
8	(3.3)
9	3.3
10	0
11	0
12	2.6
13	1.6
14	1.6
15	3.3
16	3.3
17	3.3
18	3.3
19	0
20	0
21	NC
22	0
23	3.3
24	0
25	0
26	0
27	3.3
28	NC
29	3.3
30	0
31	0
32	3.3
33	NC
34	3.3
35	3.3
36	0
37	-
38	3.3
39	NC
40	3.3
41	0.9
42	0.9
43	0
44	0
45	NC
46	0
47	3.4
48	0
49	0
50	NC
51	0
52	0
53	0
54	0
55	0
56	0
57	0
58	0
59	2.7
60	2.7
61	2.7
62	3.4
63	3.4
64	NC
65	0
66	NC
67	0
68	0
69	DIGI
70	DIGI
71	DIGI
72	DIGI
73	DIGI
74	DIGI
75	DIGI
76	DIGI
77	DIGI
78	3.4
79	DIGI
80	DIGI
81	DIGI
82	DIGI
83	DIGI
84	DIGI
85	DIGI
86	DIGI
87	0
88	3.4

PIN NO.	VOLTAGE (V)
89	0
90	0
91	0
92	0
93	0
94	NC
95	NC
96	NC
97	NC
98	NC
99	3.4
100	NC
101	NC
102	NC
103	NC
104	NC
105	NC
106	0
107	3.4
108	NC
109	NC
110	NC
111	NC
112	NC
113	0
114	3.4
115	NC
116	NC
117	NC
118	0
119	3.4
120	NC
121	NC
122	NC
123	NC
124	NC
125	NC
126	NC
127	NC
128	NC
129	0
130	3.4
131	3.4
132	NC
133	NC
134	0
135	3.3
136	-
137	-
138	NC
139	NC
140	0
141	3.3
142	NC
143	NC
144	NC
145	NC
146	NC
147	NC
148	NC
149	NC
150	NC
151	NC
152	0
153	3.3
154	NC
155	3.3
156	0
157	0.5
158	3.3
159	2.4
160	-
161	3.3
162	0
163	0.5
164	3.3
165	2.4
166	-
167	3.3
168	0.5
169	0.3
170	3.3
171	2.4
172	0.5
173	3.3
174	0
175	0
176	NC

DIGI : Digital

MAIN PB ASSY (6/12)
2DYC BLOCK
SSB-1068A-M2

IC3001-7 [H] 2.3Vp-p

IC3001-13 [H] 2.1Vp-p

IC3001-136 [V] 3.4Vp-p

IC3001-137 [H] 3.3Vp-p

IC3001-157 [H] 1.1Vp-p

IC3001-163 [H] 0.6Vp-p

IC3001-169 [H] 0.6Vp-p

<MAIN >

PIN NO.	VOLTAGE (V)
IC3002	
1	5.1
2	0
3	0
4	5.1
5	3.2

PIN NO.	VOLTAGE (V)
Q3001	
E	5.8
C	9.0
B	6.4
Q3002	
E	4.3
C	9.0
B	4.9
Q3003	
E	4.9
C	0
B	4.2
Q3004	
E	5.8
C	9.0
B	6.4
Q3005	
E	4.2
C	9.0
B	4.8
Q3006	
E	4.9
C	0
B	4.2
Q3007	
E	0.9

PIN NO.	VOLTAGE (V)
C	0
B	0.2
Q3501	
E	5.2
C	0
B	4.5
Q3502	
E	4.6
C	9.0
B	5.2
Q3505	
E	5.2
C	0
B	4.6
Q3506	
E	4.6
C	9.0
B	5.2
Q3509	
E	5.2
C	0
B	4.6
Q3510	
E	4.6
C	9.0
B	5.2

SHEET 7

SHEET 2

SHEET 7

SHEET 8

2D YC SEP & CHROMA DEMOD

MAIN PWB CIRCUIT DIAGRAM (7/12) SHEET 7

MAIN PB ASSY (7/12)
COMPONENT SW BLOCK
SSB-1068A-M2

IC1301-35 [H] 1.5Vp-p
IC1301-36 [H] 1.5Vp-p
IC1301-38 [H] 2.1Vp-p
IC1301-46 [H] 2.1Vp-p
IC1301-48 [H] 1.0Vp-p
IC1301-50 [H] 0.5Vp-p
IC1301-52 [H] 0.7Vp-p
IC1301-57 [H] 1.8Vp-p

PIN NO.	VOLTAGE (V)
IC1301	
1	0
2	0
3	4.6
4	0
5	4.6
6	0
7	4.7
8	5.0
9	4.6
10	0.4
11	4.4
12	4.4
13	0
14	4.6
15	0
16	4.6
17	0
18	4.6
19	0.4
20	4.4
21	0
22	0
23	4.5
24	4.5

PIN NO.	VOLTAGE (V)
25	0
26	4.3
27	4.3
28	4.2
29	0
30	4.4
31	9.0
32	4.5
33	4.5
34	0
35	4.4
36	4.4
37	0
38	4.4
39	4.6
40	4.4
41	4.5
42	0
43	4.5
44	4.5
45	0
46	4.5
47	9.0
48	4.7
49	0

PIN NO.	VOLTAGE (V)
50	4.6
51	0
52	4.6
53	0.4
54	0
55	0
56	0
57	4.6
58	0
59	4.6
60	0
61	4.6
62	0
63	4.4
64	4.4
65	0
66	4.6
67	4.6
68	0
69	0
70	4.4
71	4.4
72	0
73	0
74	0

PIN NO.	VOLTAGE (V)
75	4.6
76	4.6
77	0
78	4.4
79	0
80	0
Q1301	
E	3.7
C	9.0
B	4.4
Q1302	
E	3.6
C	9.0
B	4.4
Q1303	
E	3.6
C	9.0
B	4.4

SHEET 12
SHEET 10
SHEET 5
SHEET 6
SHEET 5
SHEET 4
SHEET 8
SHEET 9
SHEET 10
SHEET 1

COMPONENT INPUT SW

IC1301 AN15852A

MAIN PWB CIRCUIT DIAGRAM (8/12) SHEET 8

SHEET 12

9V 3.3V

L1211 QQL25CK-100Z

C1213 100/16 QETN1CM-107Z

GND

SHEET 4 HDCP_H HDCP_V

SHEET 6 SVP SHP

R1217 OPEN

C1214 2.2 /50 QETU1HM-225Z

R1218 8.2k

C1215 0.01 QFLC1HJ-103Z

C1216 4.7 /16 NCF11CZ-475X

R1202 100

R1203 100

R1214 100

R1213 100

SIL1211 CSS950F30

R1219 330

SYNC. SEP./ DETECT/ SW

IC1211 TA1318N

CPout HD3in VD3in DAC2 VCC H_VCO AFC_Filter A_GND VD1in HD1in VD2in HD2in

HD1out D_GND HD2out SDA SCL ADDR_SW sync2in DAC1 sync1in VD1out VD2out DAC3

R1220 100 R1221 100

D1201 OPEN D1202 OPEN

C1220 OPEN C1221 OPEN

C1218 1/16 NCB11CK-105X

Q1231 OPEN R1233 OPEN

C1232 OPEN Q1233 OPEN

R1237 OPEN R1238 OPEN R1239 OPEN R1234 5.6k

SHEET 7 COMSYNCY

R1232 5.6k R1240 0

C1233 18p NDC31HJ-180X R1236 5.6k

Q1232 2SB709A/QR/-X

SHEET 10 SDA0 SCL0

R1227 OPEN

R1226 10k

R1229 3.3K

IC1212 TC7W08F-X

R1228 2.2k R1235 OPEN

C1219 4.7/16 NCF11CZ-475X

AP_V AP_H

SHEET 9

R1231 220 R1230 100

MAIN_H MAIN_V

SHEET 10

PIN NO.	VOLTAGE (V)
IC1211	
1	0.1
2	0.1
3	0.2
4	0
5	0
6	6.3
7	---
8	9
9	1.2
10	0.1
11	0
12	0.1
13	0.5
14	0
15	0
16	4
17	4.5
18	4.4
19	2.3
20	1.2
21	2.1
22	0
23	0
24	0
IC1212	
1	3.1
2	3.1
3	0.2
4	0
5	0.5
6	0.5
7	3.3
8	3.3
Q1232	
E	2.9
C	0
B	2.2

MAIN PB ASSY (8/12)
HD SYNC BLOCK
SSB-1068A-M2

IC1211-3 [H] 1.6Vp-p

IC1211-4 [V] 3.5Vp-p

IC1211-7 2µs/div 0.2Vp-p

IC1211-13 [H] 3.0Vp-p

IC1211-15 [H] 3.3Vp-p

IC1211-21 [H] 0.1Vp-p

IC1211-22 [V] 4.2Vp-p

IC1211-23 [V] 3.3Vp-p

MAIN PWB CIRCUIT DIAGRAM (9/12) SHEET 9

MAIN PB ASSY (9/12)
AUTO WIDE BLOCK
SSB-1068A-M2

PIN NO.	VOLTAGE (V)
IC1703	
1	0
2	0
3	0
4	0
5	2.6
6	2.6
7	0
8	3.1

SHEET 12 SHEET 12 SHEET 10 SHEET 12 SHEET 10 NOT USE

STBVCC 12V STB_3.3V X_RAY LOB_POW KEY2 KEY1 EE_CDS STB_GND BS_5V POW_LED ON_TIM REMO MECA_SW HP_VOL BASS_MU

CN100G QGF1201C2-17
1 BASS_MU
2 HP_VOL
3 MECA_SW
4 REMO
5 STBVCC
6 ON_TIM
7 POW_LED
8 BS_5V
9 BS_5V
10 STB3.3V
11 STB3.3V
12 STB_GND
13 STB_GND
14 EE_CDS
15
16 KEY1
17 KEY2
18
19
20 SCL0
21 SDA0
22 12V
23 12V
24 LOB_POW
25 X_RAY

FRONT RELAY PWB
SHEET 23

SHEET 10

AP_REQ
AP_CLK
AP_DATA

NOT USE

ODU_PRO
FAN_LOCK
15/11_SW
ODU_SW
HP_MU
GR_RST

IC1703 AT24LC32-48WP74
I2C MEMORY
A0 A1 A2 Vss Vcc TEST SCL1 SDA1
D1702 MA111-x D1703 MA111-x
C1702 1UF NC811CK-105X
B1 D1704 MA8100/M-X D1705 MA8100/M/-X
R1702 100 R1703 100

SHEET 12 STB_3.3V
SDA1 SCL1 SDA0 SCL0
SHEET 10 X_RAY B1_POW
Q1712 2SB709A/QR/-X R1712 2.7k R1713 1.2k D1712 MA111-X
R1714 1.2k D1713 0 NRSA63J-0R0X C1712 10/50 R1715 33k Q1713 2SC2785/JH/-T

CE1851 10MHz OPEN
C1853 OPEN D1851 OPEN
R1851 OPEN
C1852 OPEN
IC1852 OPEN
R1844 OPEN R1845 OPEN
IC1851 OPEN
R1855 OPEN R1856 OPEN R1857 OPEN
D1852OPEN D1853OPEN
R1847OPEN
R1848 OPEN R1849 OPEN
C1851 OPEN R1852 OPEN R1853 OPEN
C1872 OPEN R1864 OPEN R1863 OPEN
Q1852 OPEN
R1861 OPEN C1855 OPEN
R1868 OPEN R1869 OPEN C1857 OPEN R1875 OPEN
Q1851 OPEN D1854 OPEN R1876 OPEN
R1871 OPEN C1854 OPEN R1870 OPEN C1858 OPEN R1862 OPEN
C1856 OPEN R1873 OPEN

C1722 OPEN
R1722 OPEN
IC1854 OPEN
C1724 OPEN R1724 OPEN R1723 OPEN C1723 OPEN
バッファ BUFFER

R1725 OPEN R1726 OPEN

D1891 MA8082M-X D1892 MA8082M-X D1893 MA8051M-X D1894 MA8051M-X
220 R1891 R1892 R1893 R1894
R1896 56k R1897 56k
CN100C QGA2501F1-06 GND SCL0 SDA0 SCL1 SDA1
CN100J OPEN

AP_V AP_V AP_H

SHEET 8 SHEET 7 SHEET 8

R1881 OPEN Q1860 OPEN R1881 OPEN R1882 OPEN R1883 OPEN
RT1886 OPEN Q1861 OPEN
C1871 OPEN C1870 OPEN R1884 OPEN
IC1853 OPEN
R1874 OPEN R1879 OPEN
D1855 OPEN D1856 OPEN
R1877 OPEN R1878 OPEN R1880 OPEN R1885 OPEN

MAIN PWB CIRCUIT DIAGRAM (10/12) SHEET 10

MAIN PB ASSY (10/12)
DIST BASE BLOCK
SSB-1068A-M2

CN1GN1 OPEN — CN1GN2 OPEN — GND — GND

PIN NO.	VOLTAGE (V)
Q1401	
E	0
C	0
B	0.6
CN1004	
1	0
2	0
3	0
4	0
5	0
6	5.1
7	31.8
8	0
9	0
10	4.5
11	4.5
12	0
13	0
14	2.1
15	3.1
16	0
17	0
18	0
19	0
20	28.6
21	0
22	0
23	3.6
24	0
25	3.3
26	0
27	9
28	0
29	0
30	0
31	5.1
32	0
33	3.1
34	3.1
35	0
36	0.1
37	3.1
38	3.1
39	2.8
40	0
41	3
42	5.1
43	5.1
44	0
45	0.2
46	0.2
47	0
48	0
49	2.6
50	2.6
51	0
52	4
53	0
54	3.3
55	0
56	0
57	0
58	0
59	0
60	0
61	0.4
62	4.4
63	0
64	0
65	0
66	3.9

PIN NO.	VOLTAGE (V)
67	0
68	0
69	0
70	0
71	4.5
72	0
73	4.4
74	0
75	4.4
76	3.1
77	10.2
78	0.1
79	1.5
80	0
81	0.1
82	2.6
83	0.1
84	0
85	0.1
86	3
87	0
88	3.1
89	0
90	5.1
91	0
92	0
93	0
94	9.6
95	0
96	3
97	3
98	0.2
99	0.1
100	0
101	3.1
102	0
103	3.1
104	0
105	0
106	0
107	3.3
108	0
109	3.3
110	0
111	3.3
112	4.9
113	0
114	2.5
115	2.5
116	0
117	0
118	0
119	0
120	0

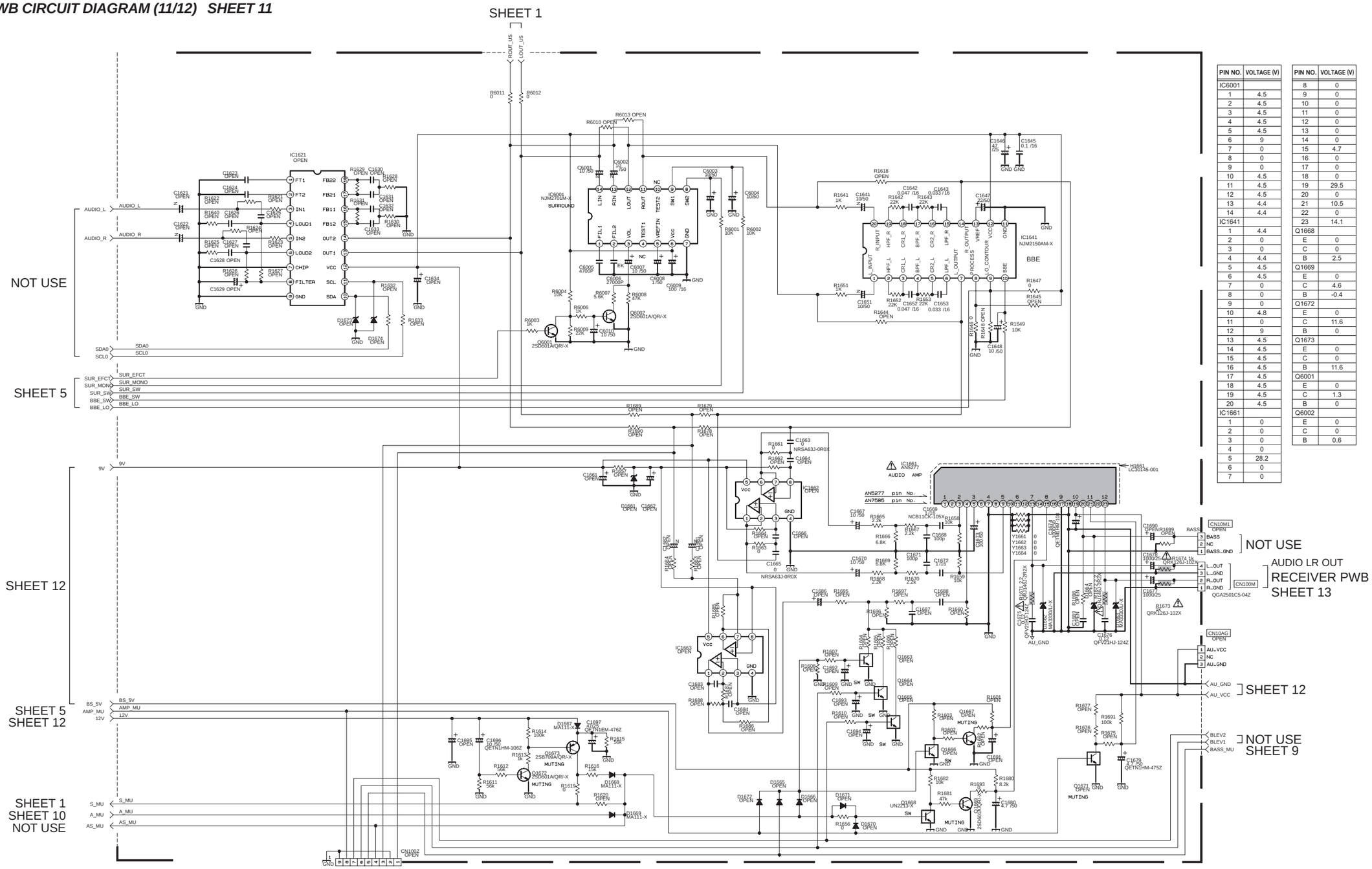
MI-COM & DIST MODULE PWB

CN1004 QGC2508C1-C0

CN1003 QGB1506L1-16 — POWER & DEF PWB(2/2) SHEET 20

G CRT SOCKET PWB CN00E SHEET 15

MAIN PWB CIRCUIT DIAGRAM (11/12) SHEET 11

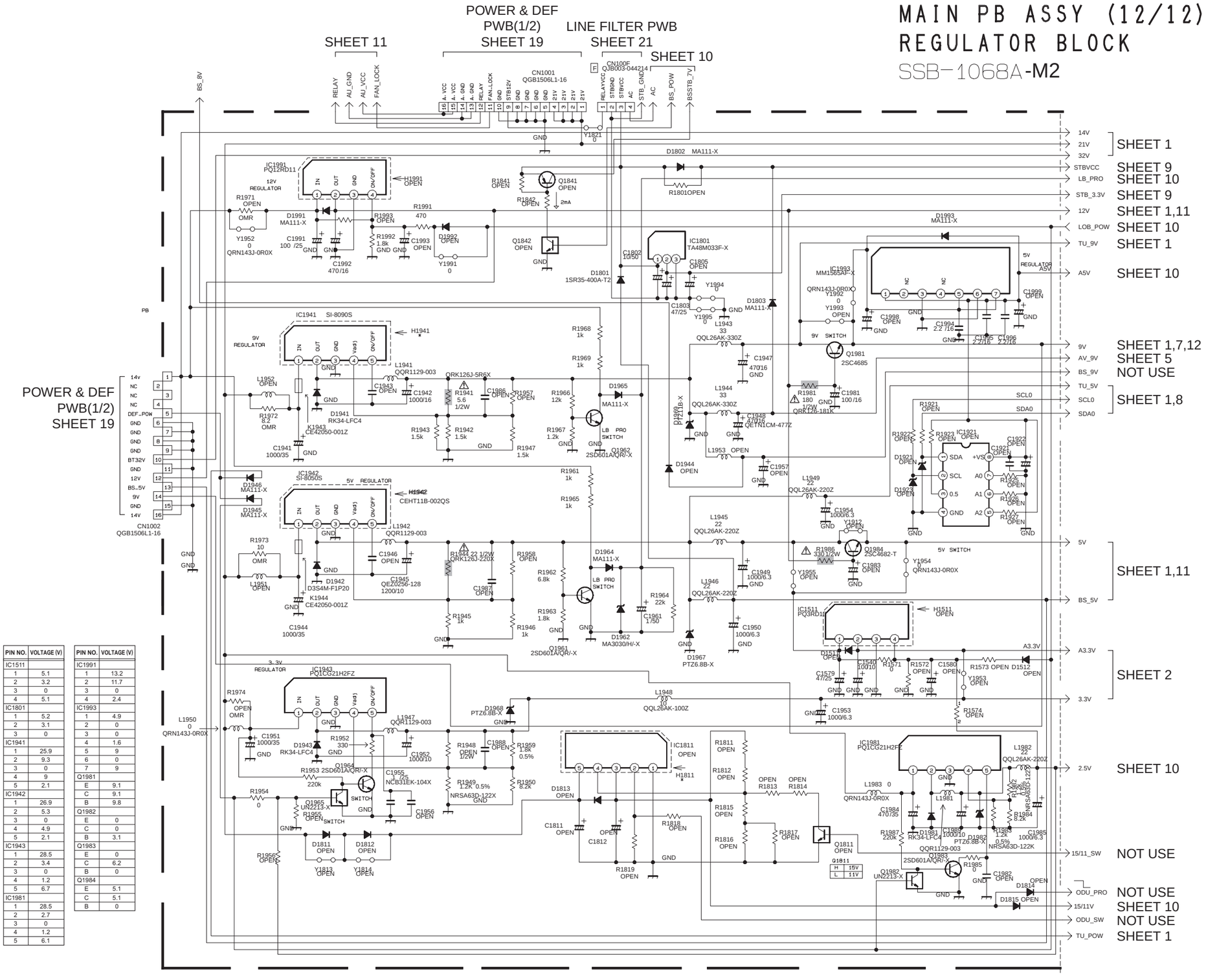


PIN NO.	VOLTAGE (V)
IC6001	
1	4.5
2	4.5
3	4.5
4	4.5
5	4.5
6	9
7	0
8	0
9	0
10	4.5
11	4.5
12	4.5
13	4.4
14	4.4
IC1641	
1	4.4
2	0
3	0
4	4.4
5	4.5
6	4.5
7	0
8	0
9	0
10	4.8
11	0
12	9
13	4.5
14	4.5
15	4.5
16	4.5
17	4.5
18	4.5
19	4.5
20	4.5
IC1661	
1	0
2	0
3	0
4	0
5	28.2
6	0
7	0

PIN NO.	VOLTAGE (V)
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	4.7
16	0
17	0
18	0
19	29.5
20	0
21	10.5
22	0
23	14.1
Q1668	
E	0
C	0
B	2.5
Q1669	
E	0
C	4.6
B	-0.4
Q1672	
E	0
C	11.6
B	0
Q1673	
E	0
C	0
B	11.6
Q6001	
E	0
C	1.3
B	0
Q6002	
E	0
C	0
B	0.6

MAIN PB ASSY (11/12)
AUDIO BLOCK
SSB-1068A-M2

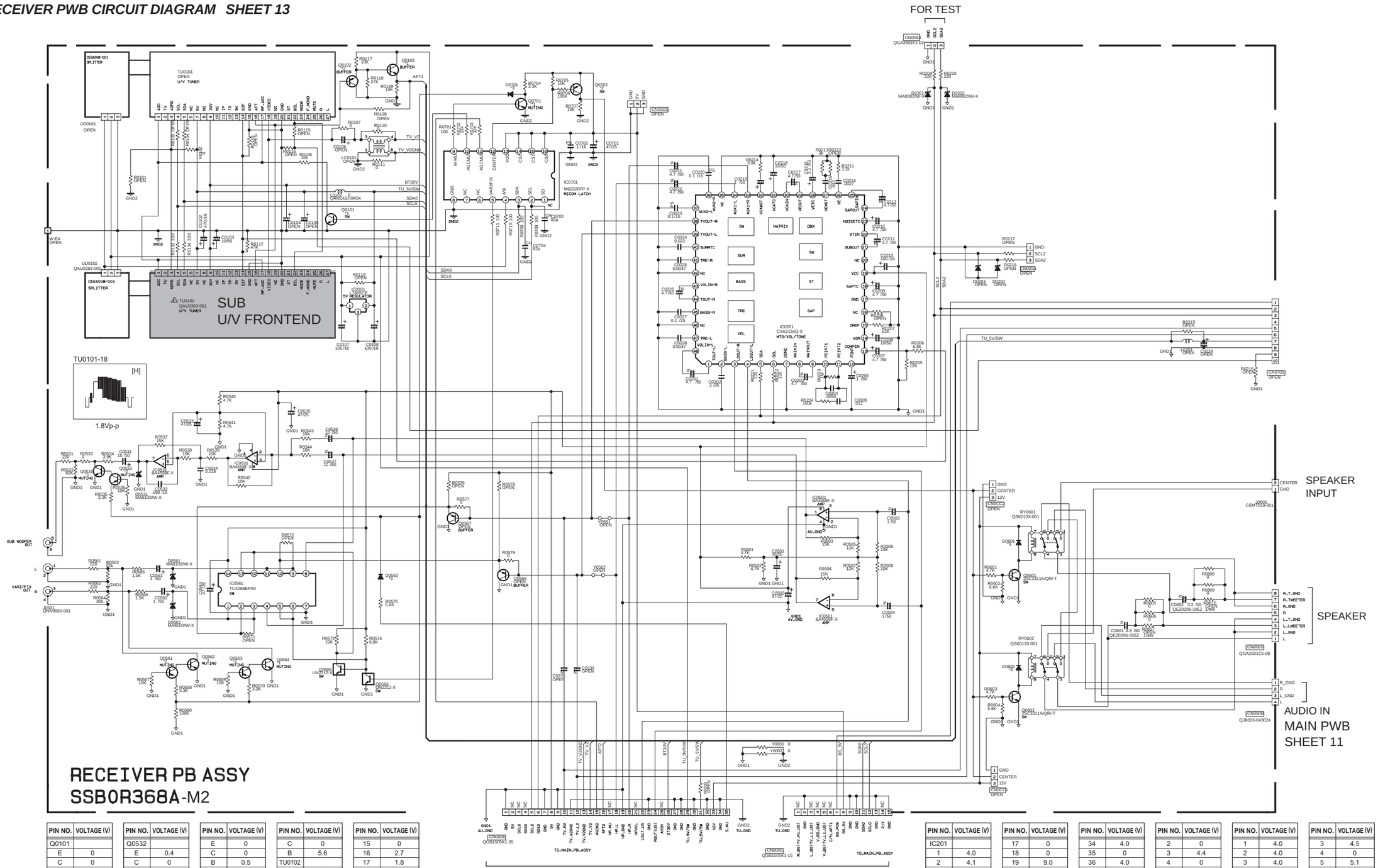
MAIN PWB CIRCUIT DIAGRAM (12/12) SHEET 12



PIN NO.	VOLTAGE (V)
IC1511	
1	5.1
2	3.2
3	0
4	5.1
IC1801	
1	5.2
2	3.1
3	0
IC1941	
1	25.9
2	9.3
3	0
4	9
5	2.1
IC1942	
1	26.9
2	5.3
3	0
4	4.9
5	2.1
IC1943	
1	28.5
2	3.4
3	0
4	1.2
5	6.7
IC1981	
1	28.5
2	2.7
3	0
4	1.2
5	6.1

PIN NO.	VOLTAGE (V)
IC1991	
1	13.2
2	11.7
3	0
4	2.4
IC1993	
1	4.9
2	0
3	0
4	1.6
5	9
6	0
7	9
Q1981	
E	9.1
C	9.1
B	9.8
Q1982	
E	0
C	0
B	3.1
Q1983	
E	0
C	6.2
B	0
Q1984	
E	5.1
C	5.1
B	0

RECEIVER PWB CIRCUIT DIAGRAM SHEET 13



PIN NO.	VOLTAGE (V)
Q0101	
E	0
C	0
B	0
Q0102	
E	3.3
C	0
B	2.7
Q0103	
E	2.8
C	9.0
B	3.3
Q0531	
E	0
C	0
B	0

PIN NO.	VOLTAGE (V)
Q0532	
E	0.4
C	0
B	0
Q0561	
E	0
C	0.5
B	0
Q0562	
E	0
C	0
B	0.5
Q0563	
E	0.5
C	0.5
B	0
Q0564	

PIN NO.	VOLTAGE (V)
E	0
C	0
B	0.5
Q0565	
E	0
C	8.9
B	0
Q0566	
E	0
C	0
B	5.0
Q0701	
E	0
C	0
B	0.7
Q0702	
E	5.1

PIN NO.	VOLTAGE (V)
C	0
B	5.6
TU0102	
1	1.8
2	NC
3	4.2
4	4.4
5	4.4
6	NC
7	4.8
8	NC
9	30
10	NC
11	NC
12	NC
13	NC
14	0

PIN NO.	VOLTAGE (V)
15	0
16	2.7
17	1.8
18	2.5
19	NC
20	0
21	NC
22	NC
23	NC
24	NC
25	NC
26	NC
27	NC

PIN NO.	VOLTAGE (V)
IC201	
1	4.0
2	4.1
3	4.0
4	4.0
5	5.0
6	5.0
7	0
8	4.0
9	4.0
10	4.1
11	4.7
12	5.0
13	4.0
14	0
15	1.1
16	0

PIN NO.	VOLTAGE (V)
17	0
18	0
19	9.0
20	0
21	4.0
22	4.0
23	4.1
24	3.9
25	4.0
26	4.0
27	4.0
28	1.6
29	4.0
30	4.0
31	1.6
32	4.0
33	4.0

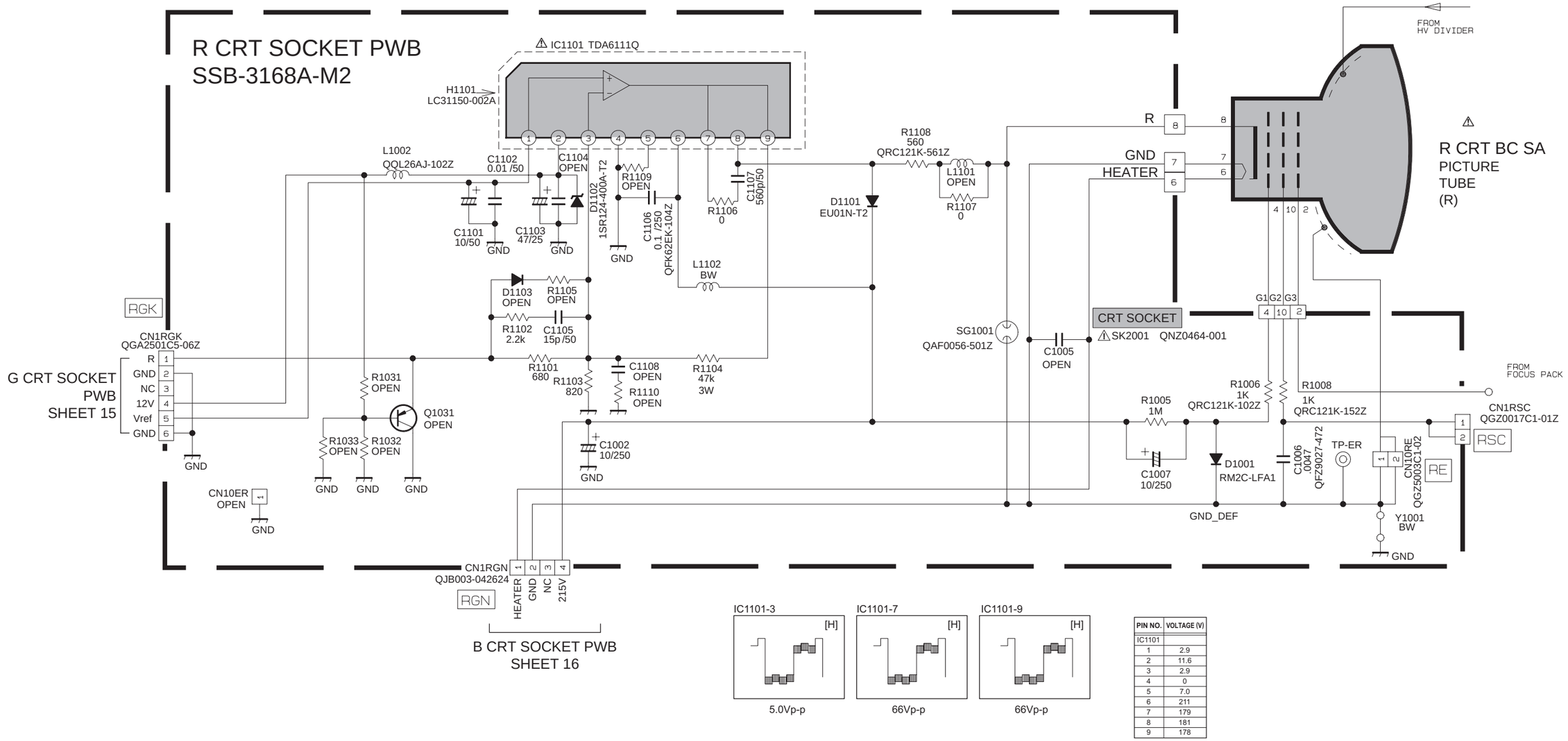
PIN NO.	VOLTAGE (V)
34	4.0
35	0
36	4.0
37	4.0
38	4.0
39	4.0
40	4.0
41	4.1
42	0
43	4.0
44	4.0
45	4.1
46	0
47	4.1
48	4.0
IC501	
1	4.4

PIN NO.	VOLTAGE (V)
2	0
3	4.4
4	0
5	4.4
6	4.3
7	0
8	9.0
IC531	
1	4.4
2	0
3	0
4	0
5	4.4
6	4.4
7	4.4
8	9.0
IC561	

PIN NO.	VOLTAGE (V)
1	4.0
2	4.0
3	4.0
4	4.4
5	0
6	0
7	0
8	4.4
9	4.0
10	4.0
11	0
12	8.9
13	8.9
14	9.0
IC701	
1	0
2	4.4

PIN NO.	VOLTAGE (V)
3	4.5
4	0
5	5.1
6	0
7	0
8	0
9	1.9
10	0
11	0
12	5.1
13	5.1
14	5.1
15	5.1
16	5.1

R CRT SOCKET PWB CIRCUIT DIAGRAM SHEET 14



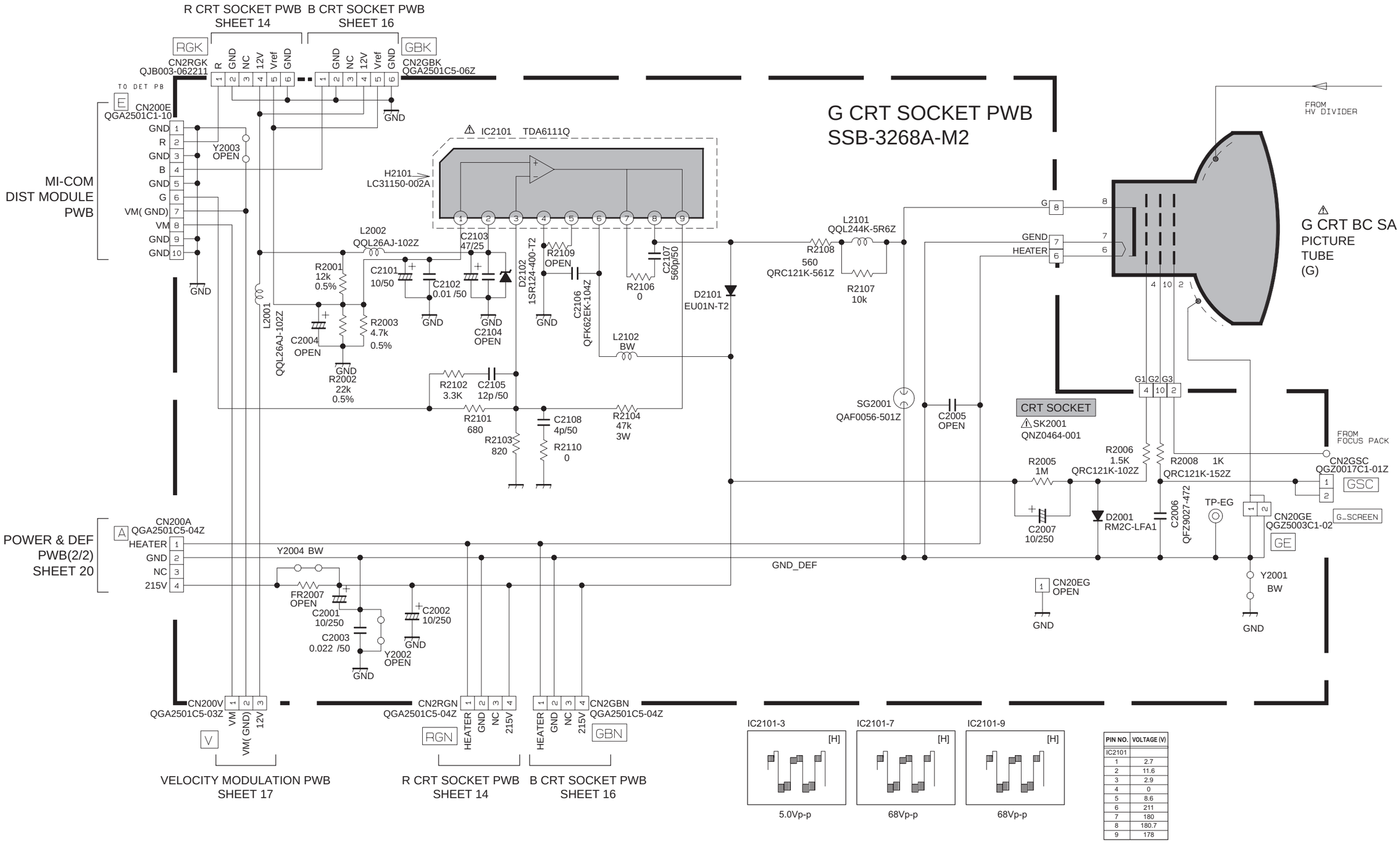
IC1101-3 [H] 5.0Vp-p

IC1101-7 [H] 66Vp-p

IC1101-9 [H] 66Vp-p

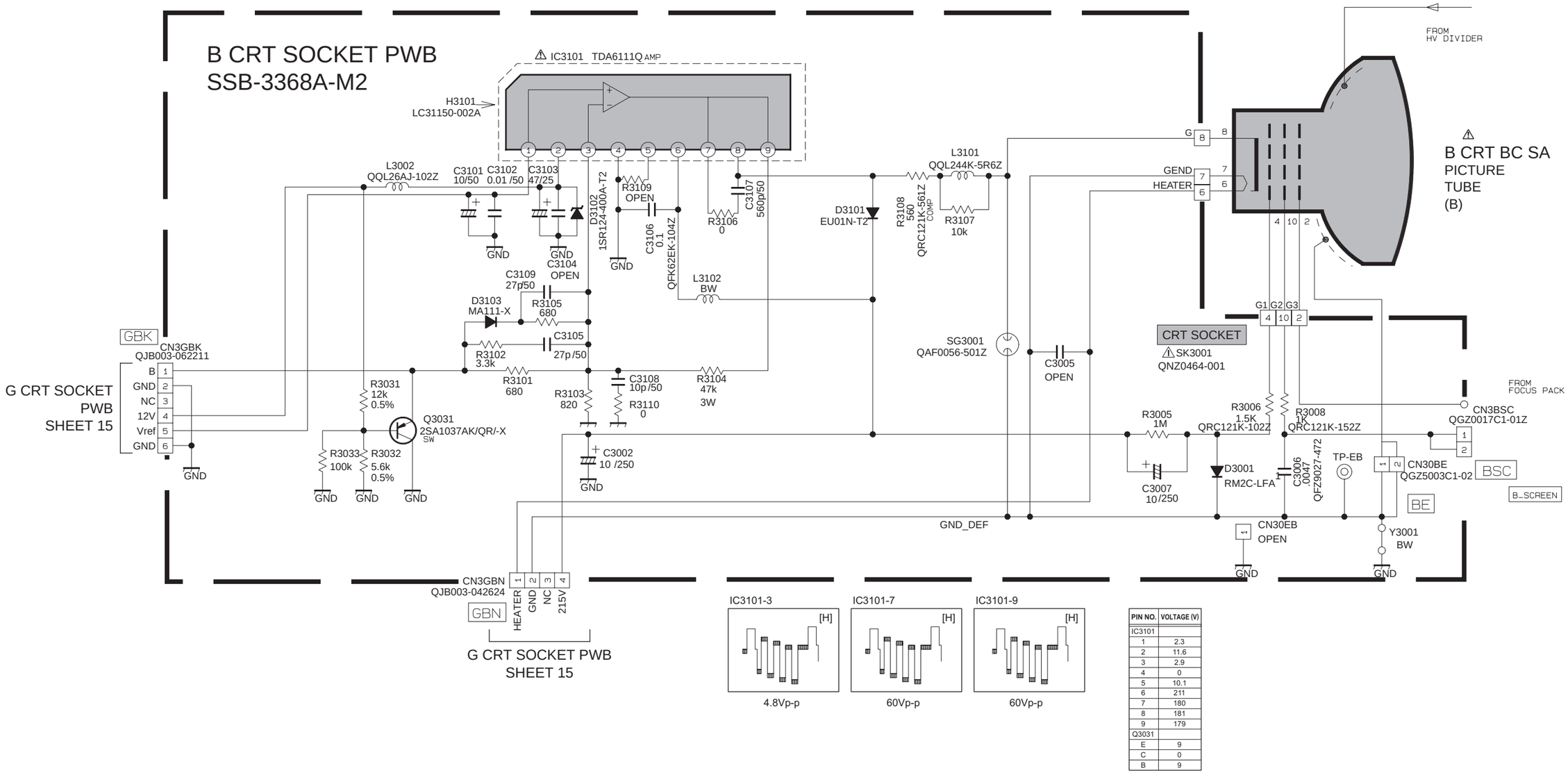
PIN NO.	VOLTAGE (V)
IC1101	
1	2.9
2	11.6
3	2.9
4	0
5	7.0
6	211
7	179
8	181
9	178

G CRT SOCKET PWB CIRCUIT DIAGRAM SHEET 15



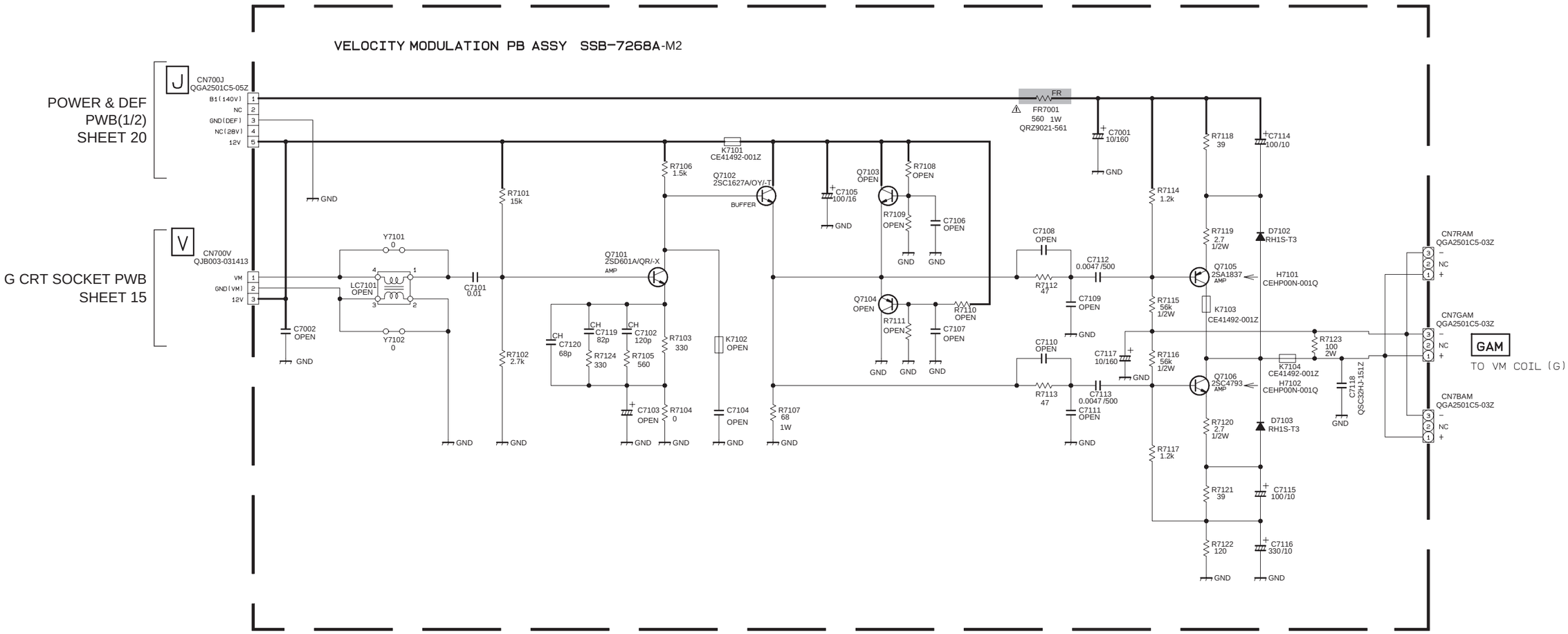
PIN NO.	VOLTAGE (V)
IC2101	
1	2.7
2	11.6
3	2.9
4	0
5	8.6
6	211
7	180
8	180.7
9	178

B CRT SOCKET PWB CIRCUIT DIAGRAM SHEET 16



PIN NO.	VOLTAGE (V)
IC3101	
1	2.3
2	11.6
3	2.9
4	0
5	10.1
6	211
7	180
8	181
9	179
Q3031	
E	9
C	0
B	9

VM PWB CIRCUIT DIAGRAM SHEET 17

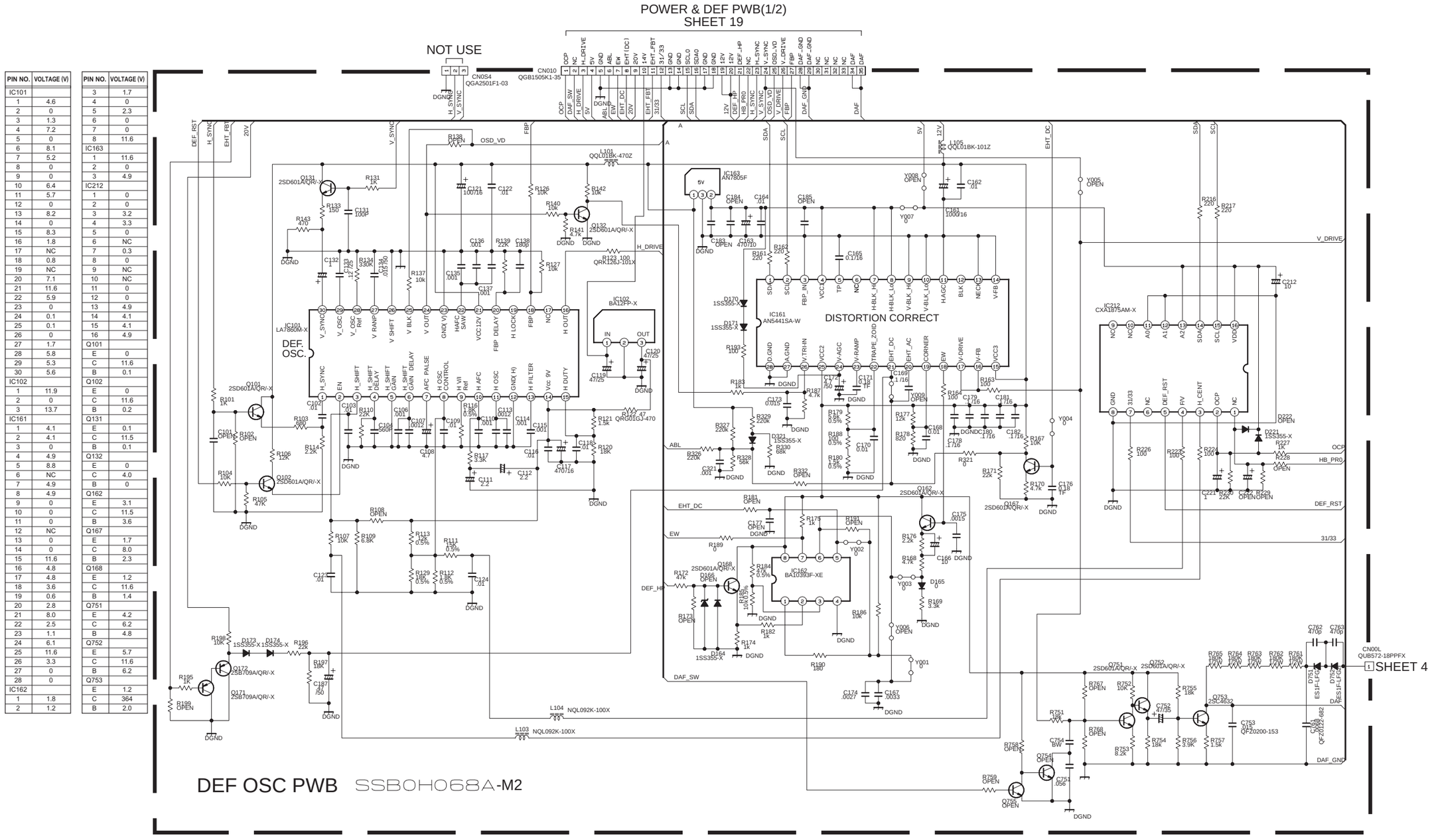


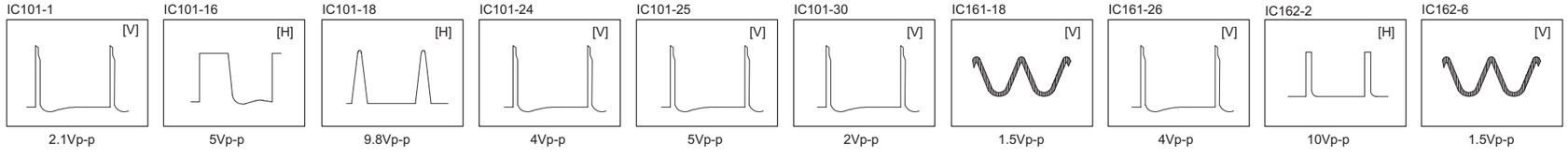
PIN NO.	VOLTAGE (V)
Q7101	
E	1.1
C	6.0
B	1.7
Q7102	
E	5.3
C	11.7
B	6.0
Q7105	
E	130
C	66.4
B	127.2
Q7106	
E	2.7
C	66.4
B	3.2

DEF OSC PWB CIRCUIT DIAGRAM SHEET 18

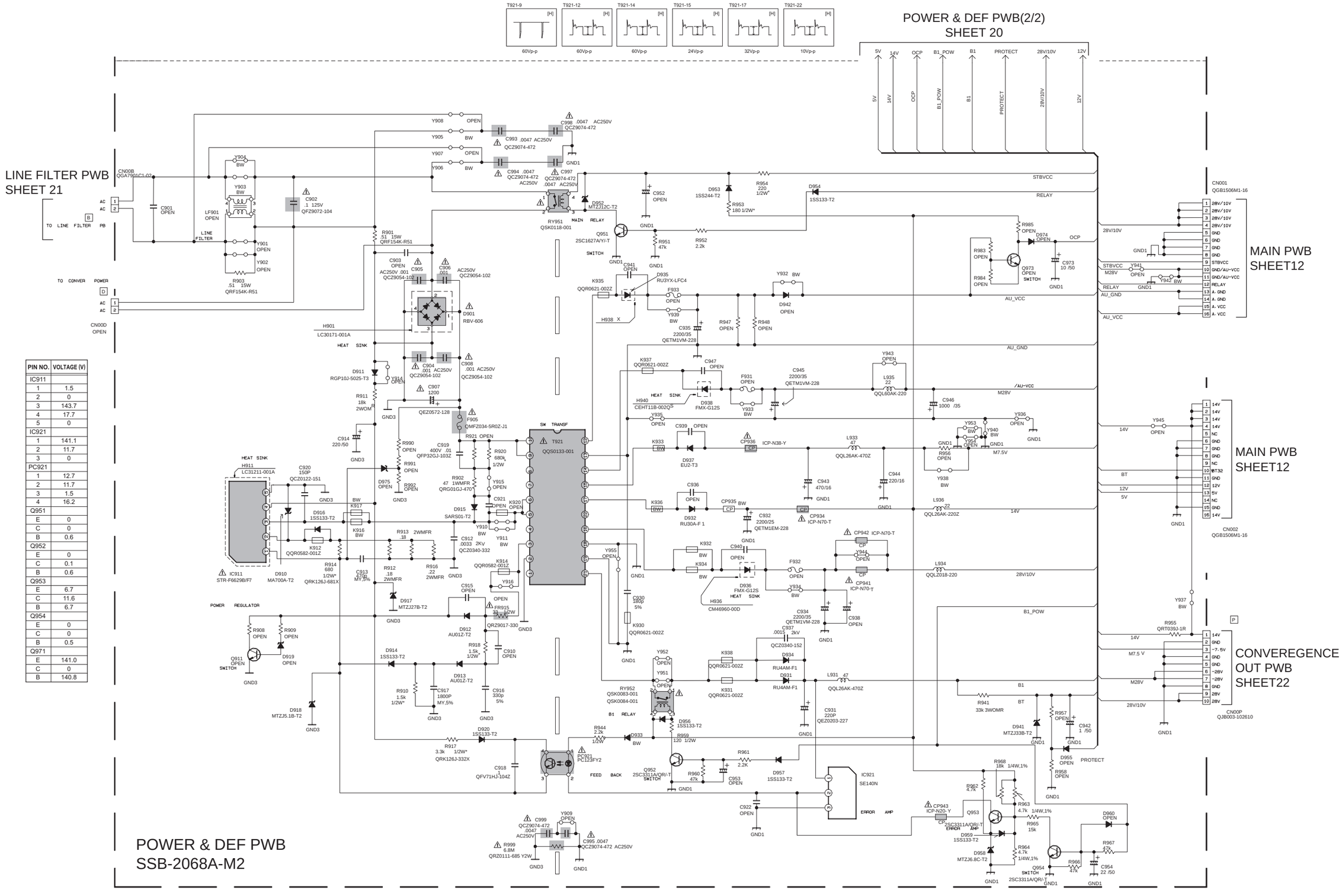
PIN NO.	VOLTAGE (V)
IC101	
1	4.6
2	0
3	1.3
4	7.2
5	0
6	8.1
7	5.2
8	0
9	0
10	6.4
11	5.7
12	0
13	8.2
14	0
15	8.3
16	1.8
17	NC
18	0.8
19	NC
20	7.1
21	11.6
22	5.9
23	0
24	0.1
25	0.1
26	0
27	1.7
28	5.8
29	5.3
30	5.6
IC102	
1	11.9
2	0
3	13.7
IC161	
1	4.1
2	4.1
3	0
4	4.9
5	8.8
6	NC
7	4.9
8	4.9
9	0
10	0
11	0
12	NC
13	0
14	0
15	11.6
16	4.8
17	4.8
18	3.6
19	0.6
20	2.8
21	8.0
22	2.5
23	1.1
24	6.1
25	11.6
26	3.3
27	0
28	0
IC162	
1	1.8
2	1.2

PIN NO.	VOLTAGE (V)
3	1.7
4	0
5	2.3
6	0
7	0
8	11.6
IC163	
1	11.6
2	0
3	4.9
IC212	
1	0
2	0
3	3.2
4	3.3
5	0
6	NC
7	0.3
8	0
9	NC
10	NC
11	0
12	0
13	4.9
14	4.1
15	4.1
16	4.9
Q101	
E	0
C	11.6
B	0.1
Q102	
E	0
C	11.6
B	0.2
Q131	
E	0.1
C	11.5
B	0.1
Q132	
E	0
C	4.0
B	0
Q162	
E	3.1
C	11.5
B	3.6
Q167	
E	1.7
C	8.0
B	2.3
Q168	
E	1.2
C	11.6
B	1.4
Q751	
E	4.2
C	6.2
B	4.8
Q752	
E	5.7
C	11.6
B	6.2
Q753	
E	1.2
C	364
B	2.0





POWER & DEF PWB CIRCUIT DIAGRAM(1/2) SHEET19



PIN NO.	VOLTAGE (V)
IC911	
1	1.5
2	0
3	143.7
4	17.7
5	0
IC921	
1	141.1
2	11.7
3	0
PC921	
1	12.7
2	11.7
3	1.5
4	16.2
Q951	
E	0
C	0
B	0.6
Q952	
E	0
C	0.1
B	0.6
Q953	
E	6.7
C	11.6
B	6.7
Q954	
E	0
C	0
B	0.5
Q971	
E	141.0
C	0
B	140.8

POWER & DEF PWB CIRCUIT DIAGRAM(2/2) SHEET 20

MAIN PWB
SHEET 10

DEF OSC PWB
SHEET 18

POWER &DEF
PWB(1/2)
SHEET 19

SHEET 18

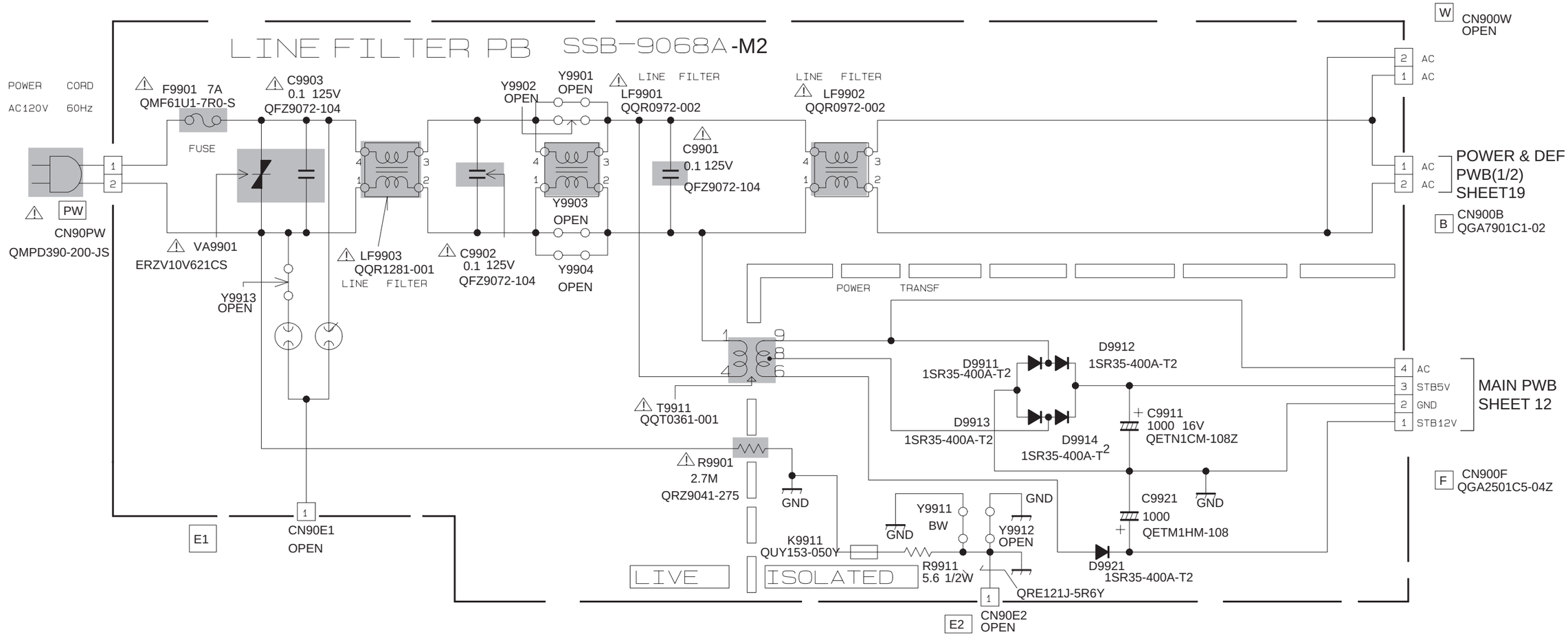
G CRT SOCKET PWB
SHEET 15

VELOCITY MODULATION PWB
SHEET 17

POWER &DEF PWB
SSB-2068A-M2

PIN NO.	VOLTAGE (V)
IC401	
1	0
2	-14.8
3	0.2
4	13.7
5	2.1
6	2.1
7	14.8
8	-13.5
9	14.2
10	-13.6
Q401	
E	0
C	5.8
B	0
Q402	
E	0.1
C	11.7
B	-1.5
Q503	
E	0
C	213
B	0
Q521	
E	1.5
C	11.7
B	1.7
Q532	
E	9.7
C	11.7
B	9.6
Q533	
E	9.6
C	0
B	9.7
Q501	
S	0
D	32.2
G	1.7
Q531	
S	0
D	21.8
G	9.7

LINE FILTER PWB CIRCUIT DIAGRAM SHEET 21



CONVERGENCE OUT PWB CIRCUIT DIAGRAM SHEET 22

CN011-2 [V] 5Vp-p

CN011-3 [H] 5Vp-p

MICOM & DIST MODULE PWB

DIGITAL CONVERGENCE MODULE PWB

PHOTO SENCER

POWER & DEF PWB(1/2) SHEET19

CONVERGENCE OUT PWB
SSB-5068A-M2

R.CONVERGENCE YOKE

G CONVERGENCE YOKE

B CONVERGENCE YOKE

PIN NO.	VOLTAGE (V)
IC801	
1	13.3
2	0
3	4.9
IC803	
1	13.3
2	0
3	4.9
IC804	
1	0
2	0
3	-27.1
4	-28.1
5	27.8
6	0
7	0
8	-28.8
9	0
10	28.5
11	0
12	-28.8
13	0
14	0
15	0.1
16	0.1
17	-28.8

PIN NO.	VOLTAGE (V)
18	0.1
IC805	
1	0
2	0
3	-27.0
4	-28.1
5	27.9
6	0
7	0
8	-28.8
9	0.1
10	28.5
11	-0.2
12	-28.8
13	-0.2
14	-0.2
15	-0.1
16	-0.1
17	-28.8
18	-0.1
IC806	
1	0
2	4.9
3	4.9
4	0
5	0

PIN NO.	VOLTAGE (V)
6	0
7	4.9
8	4.9
Q801	
E	-9.3
C	-5.4
B	-8.7
Q802	
E	0.5
C	0
B	0
Q803	
E	0.5
C	-8.1
B	0
Q806	
E	0
C	4.9
B	0
Q807	
E	0
C	4.9
B	0
Q808	
E	0
C	4.9

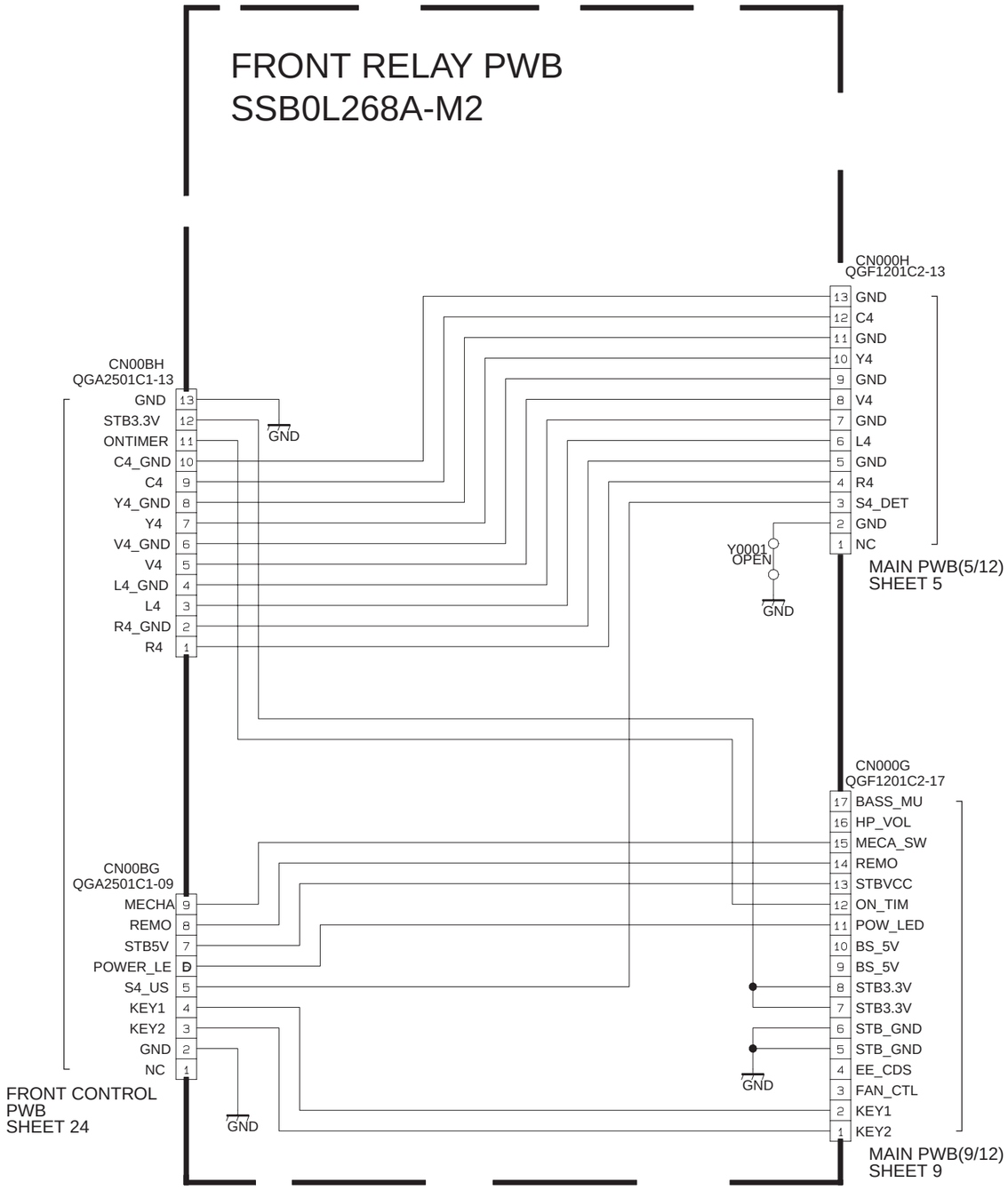
PIN NO.	VOLTAGE (V)
B	0
Q809	
E	0
C	0.2
B	0.5
Q810	
E	0
C	0.8
B	0.3
Q811	
S	0
D	0
G	3.0
Q812	
S	0
D	3.1
G	0
CN011	
1	0
2	0
3	0
4	-0.1
5	0
6	0
7	-0.1
8	0
9	-5.4
10	0
11	5
12	0
13	0
14	0
15	0

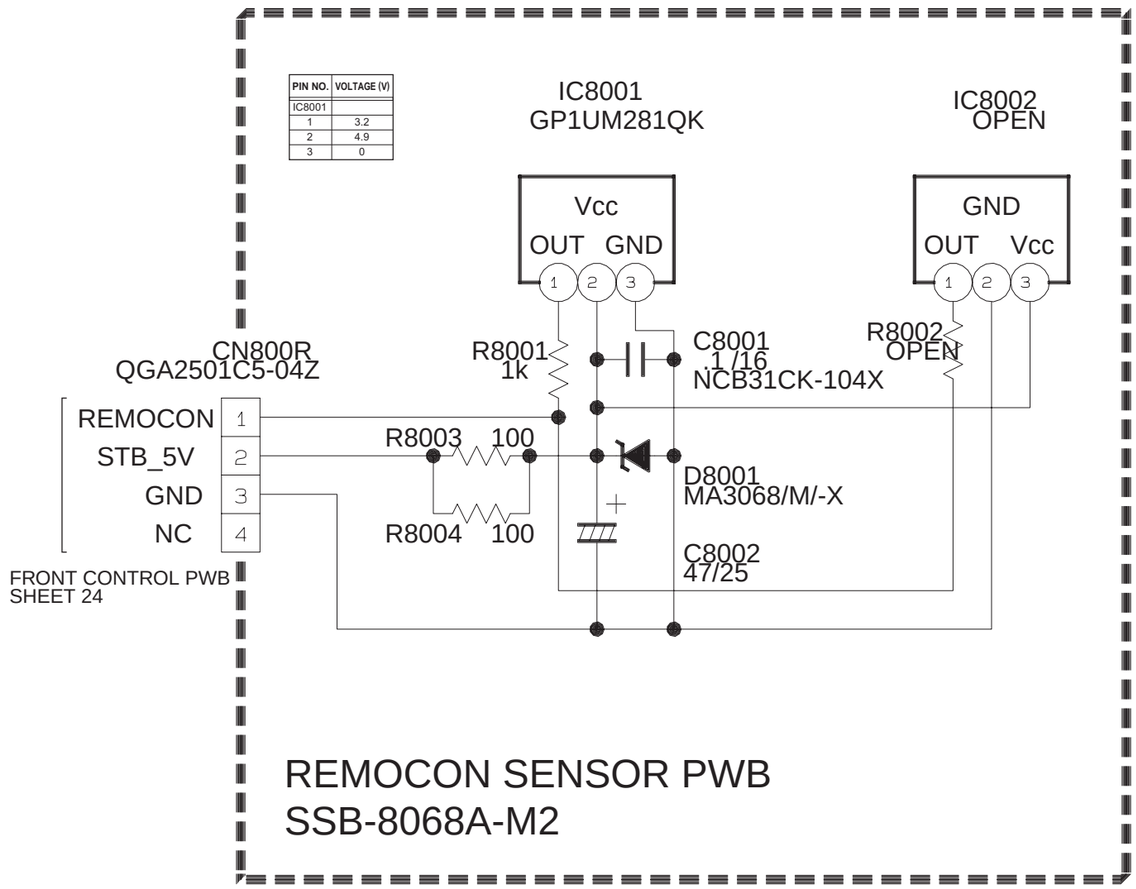
PIN NO.	VOLTAGE (V)
9	-5.4
10	0
11	5
12	0
13	0
14	0
15	0
CN012	
1	0
2	0
3	0
4	-0.1
5	0
6	0
7	-0.1
8	0
9	-5.4
10	0
11	5
12	0
13	0
14	0
15	0

AV-48WP74
AV-56WP74

FRONT RELAY PWB CIRCUIT DIAGRAM SHEET 23

REMOCON SENSOR PWB CIRCUIT DIAGRAM SHEET 23





AV-48WP74 AV-48WP74
AV-56WP74 AV-56WP74

FRONT CONTROL PWB CIRCUIT DIAGRAM SHEET 24

FRONT CONTROL PWB
SSB0L068A-M2

PIN NO.	VOLTAGE (V)
IC0702	
1	0
2	4.9
3	4.9
4	8.4
5	4.9
6	0
7	0
8	0
Q0701	
E	0
C	0.4
B	0.6
Q0702	
E	0
C	1.7
B	0

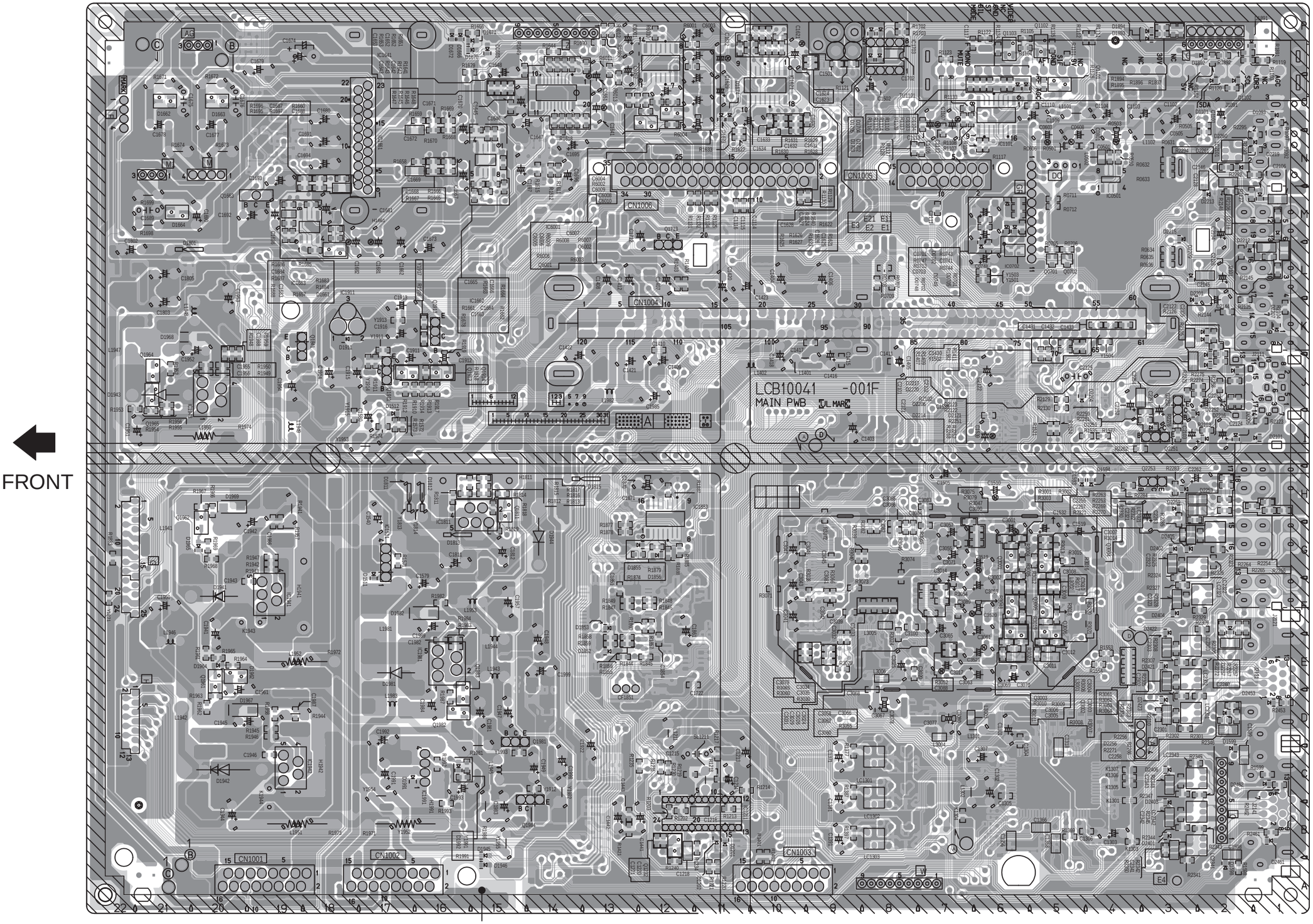
FRONT RELAY
PWB
SHEET 23

RECEIVER
PWB
SHEET 13

AV-48WP74
AV-56WP74

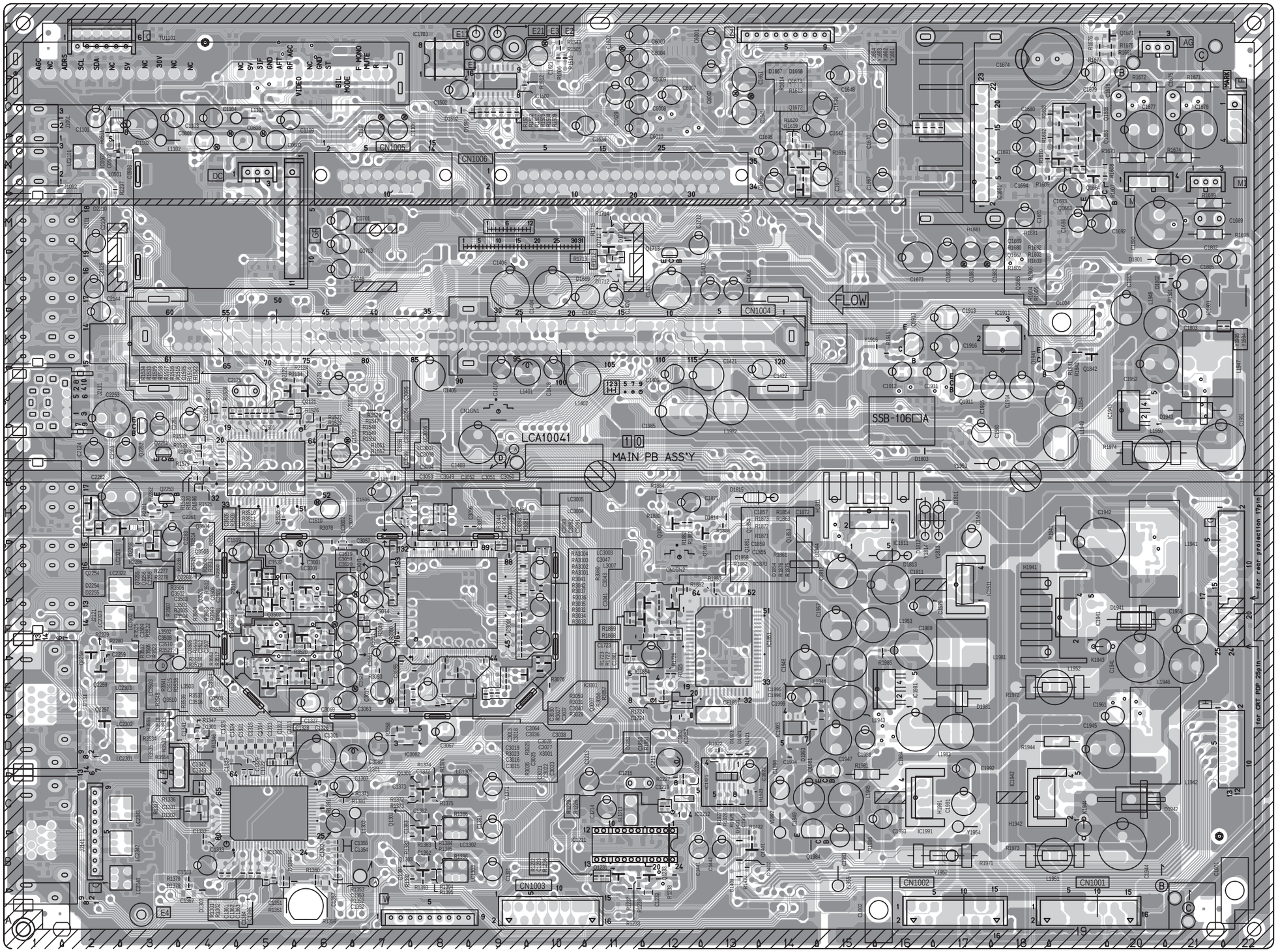
PATTERN DIAGRAMS

MAIN PWB PATTERN [SOLDER SIDE]



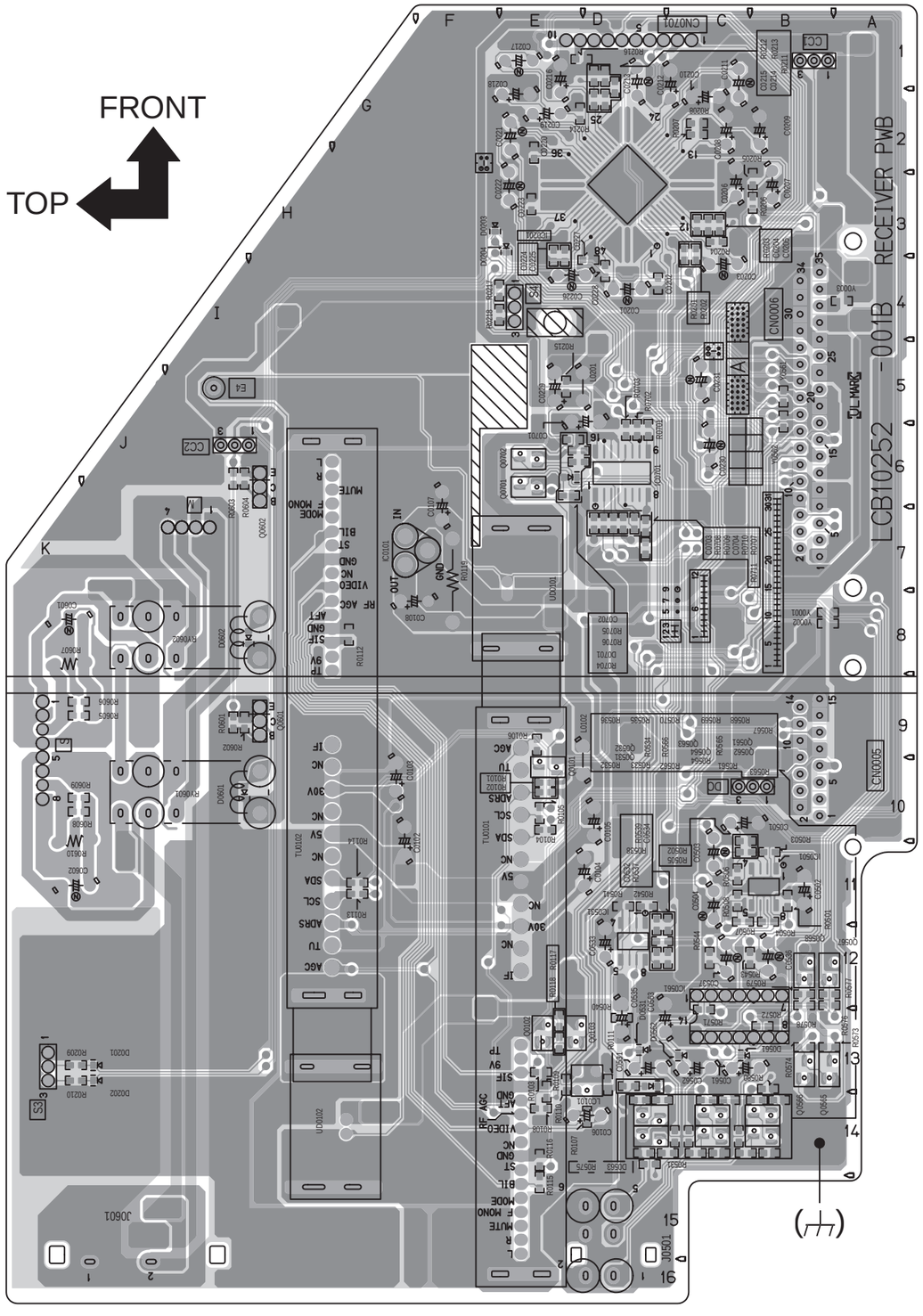
FRONT

MAIN PWB PATTERN [PARTS SIDE]

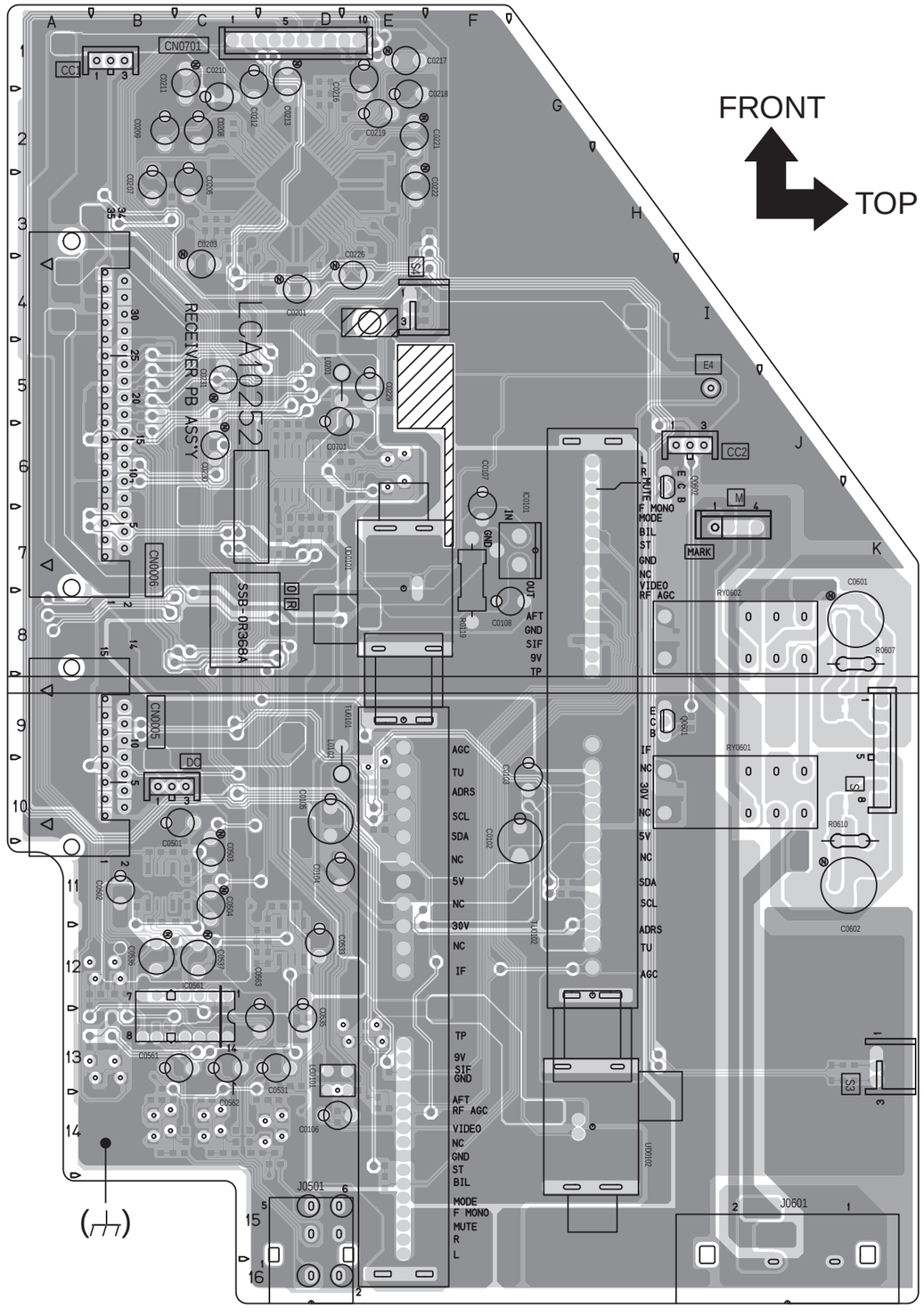


AV-48WP74
AV-56WP74

RECEIVER PWB PATTERN [SOLDER SIDE]

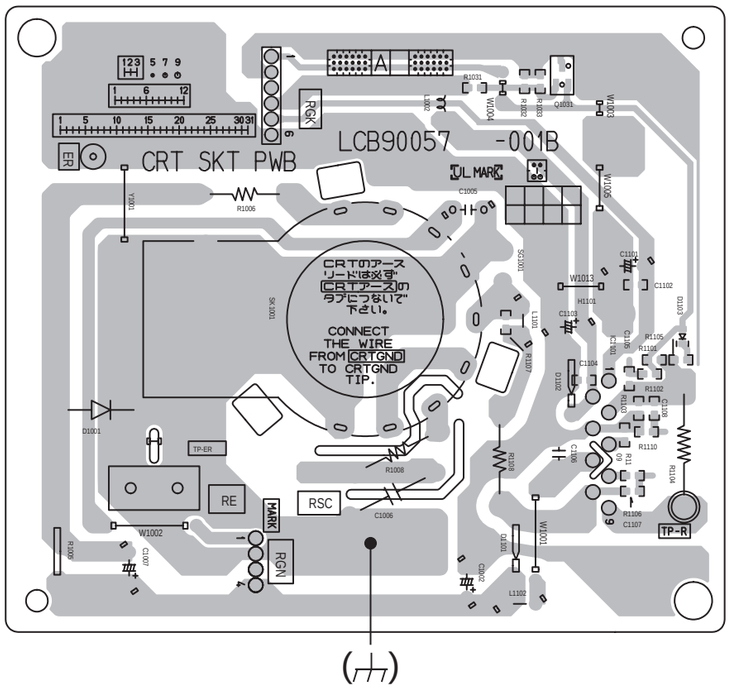


RECEIVER PWB PATTERN [PARTS SIDE]

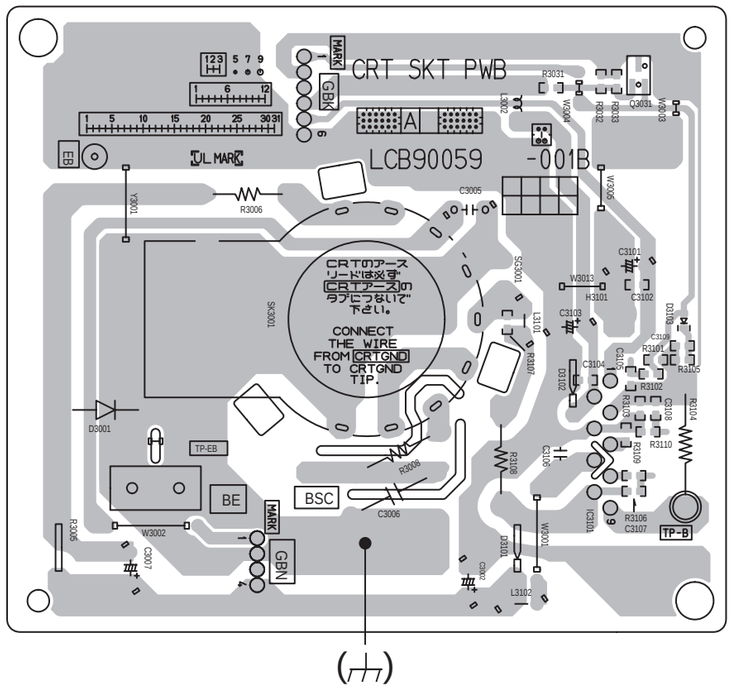


AV-48WP74
AV-56WP74

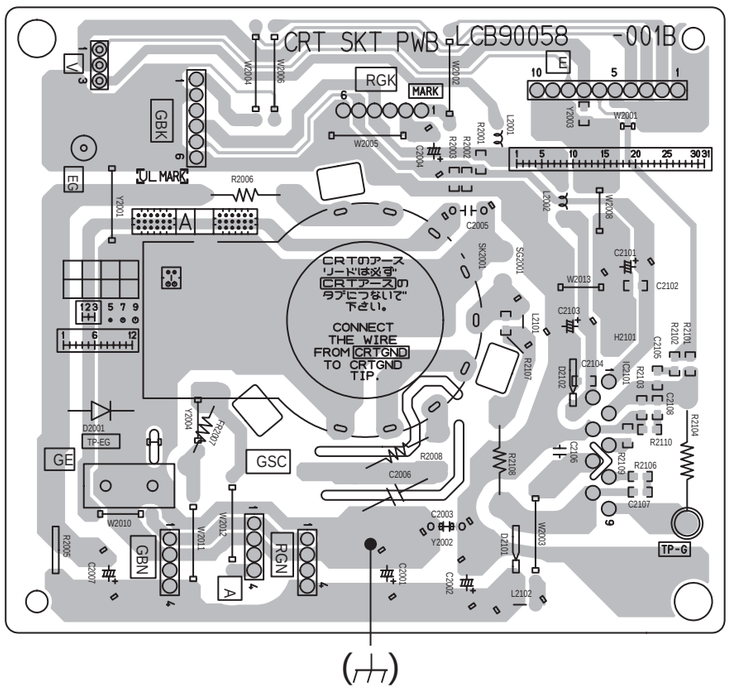
R CRT SOCKET PWB PATTERN



B CRT SOCKET PWB PATTERN

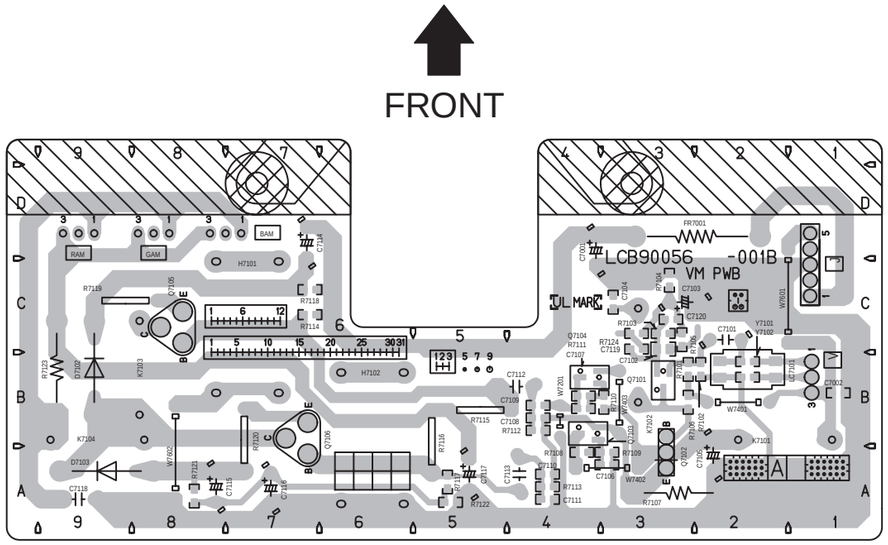


G CRT SOCKET PWB PATTERN



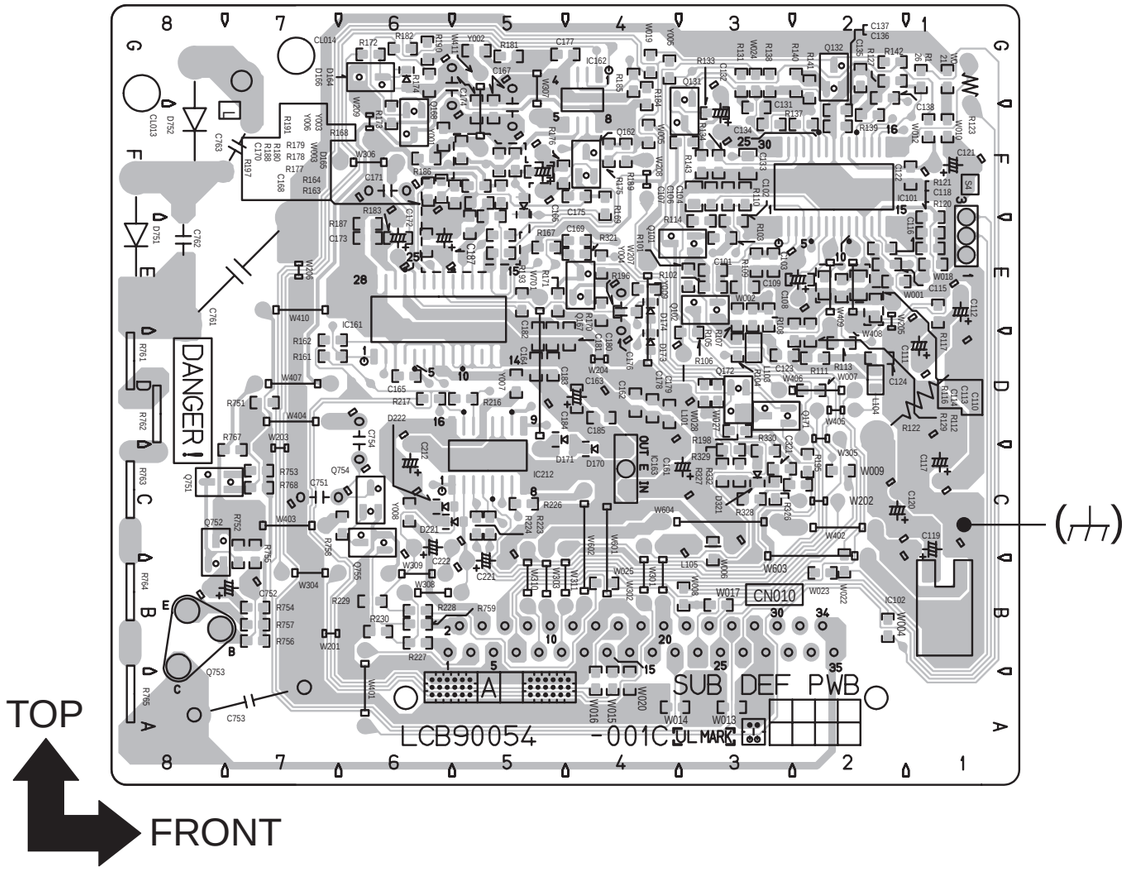
AV-48WP74
AV-56WP74

VM PWB PATTERN

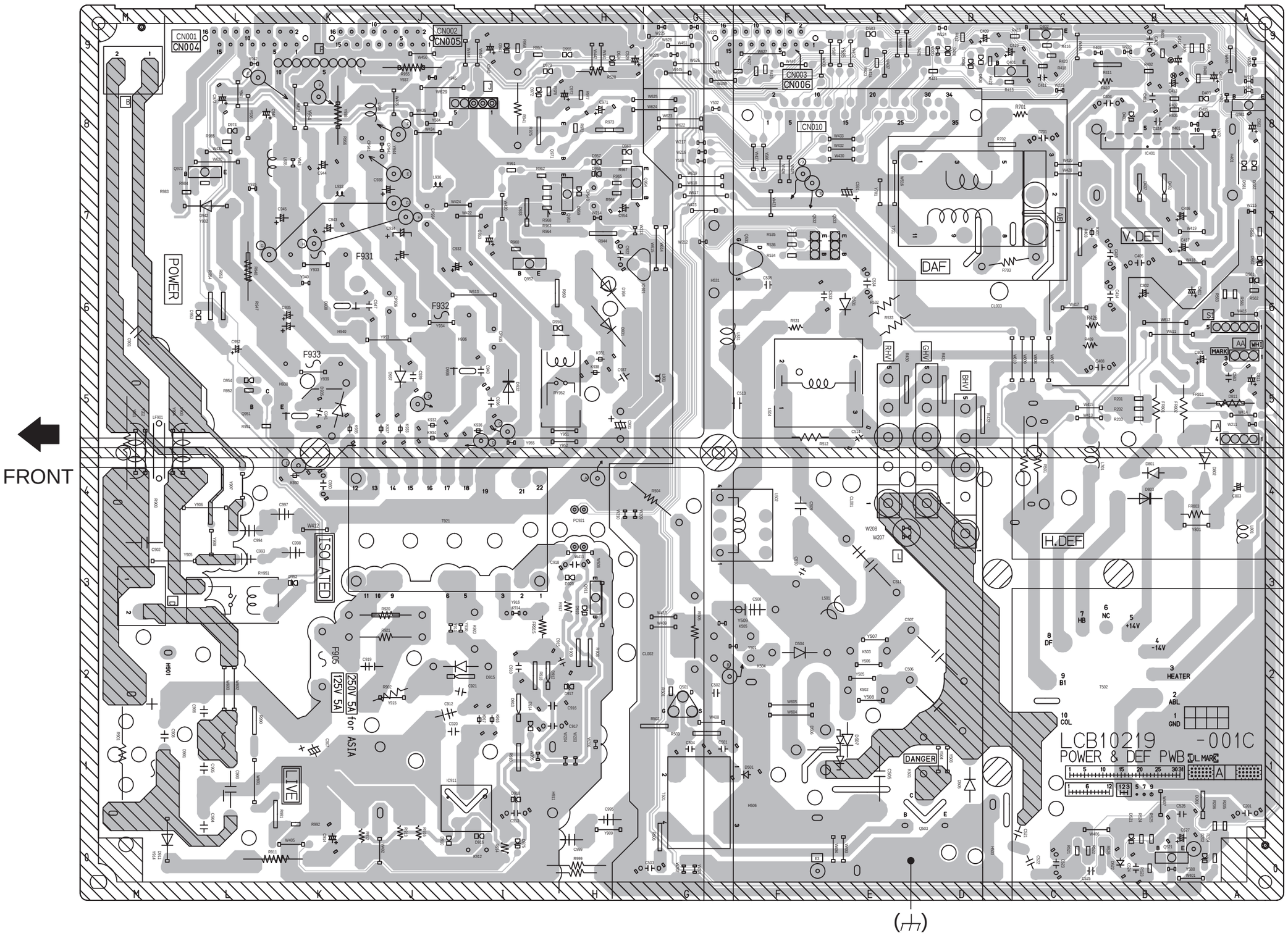


AV-48WP74
AV-56WP74

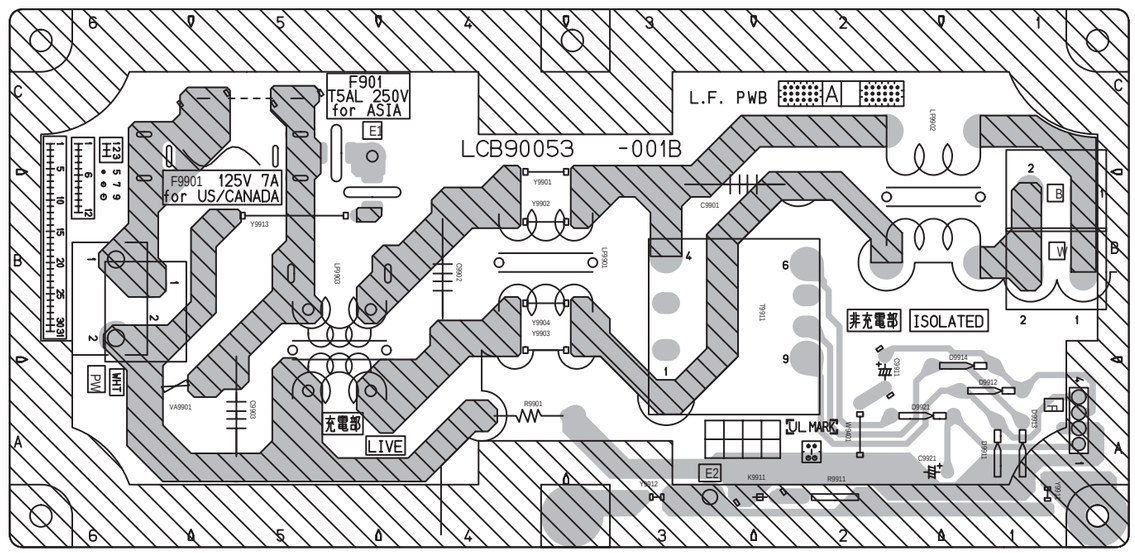
DEF OSC PWB PATTERN

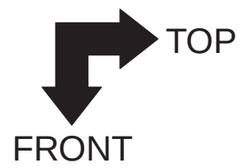


POWER & DEF PWB PATTERN

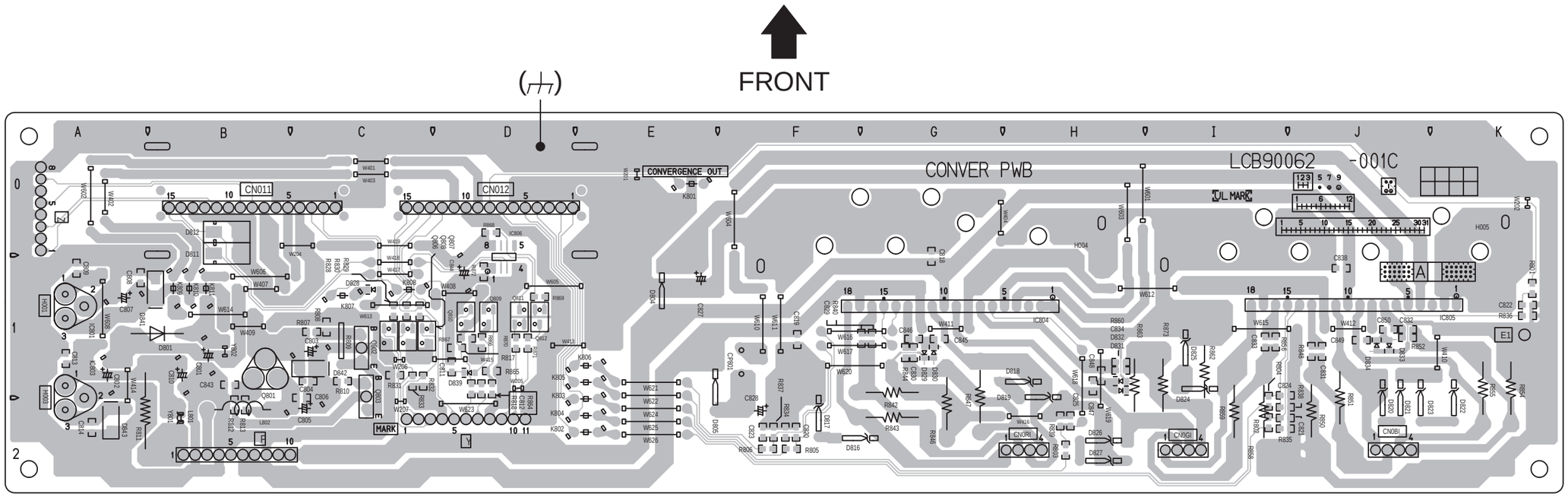


LINE FILTER PWB PATTERN





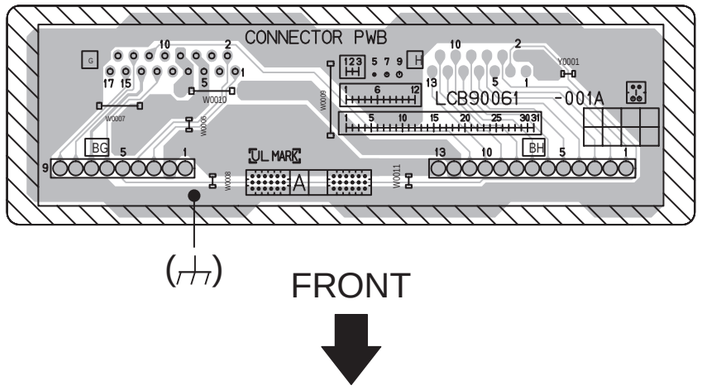
CONVERGENCE OUT PWB PATTERN



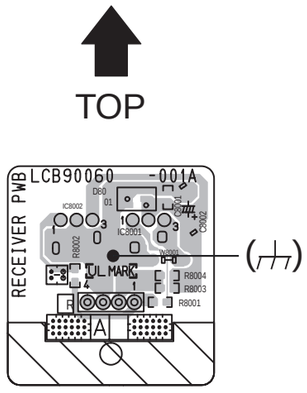
AV-48WP74
AV-56WP74

AV-48WP74
AV-56WP74

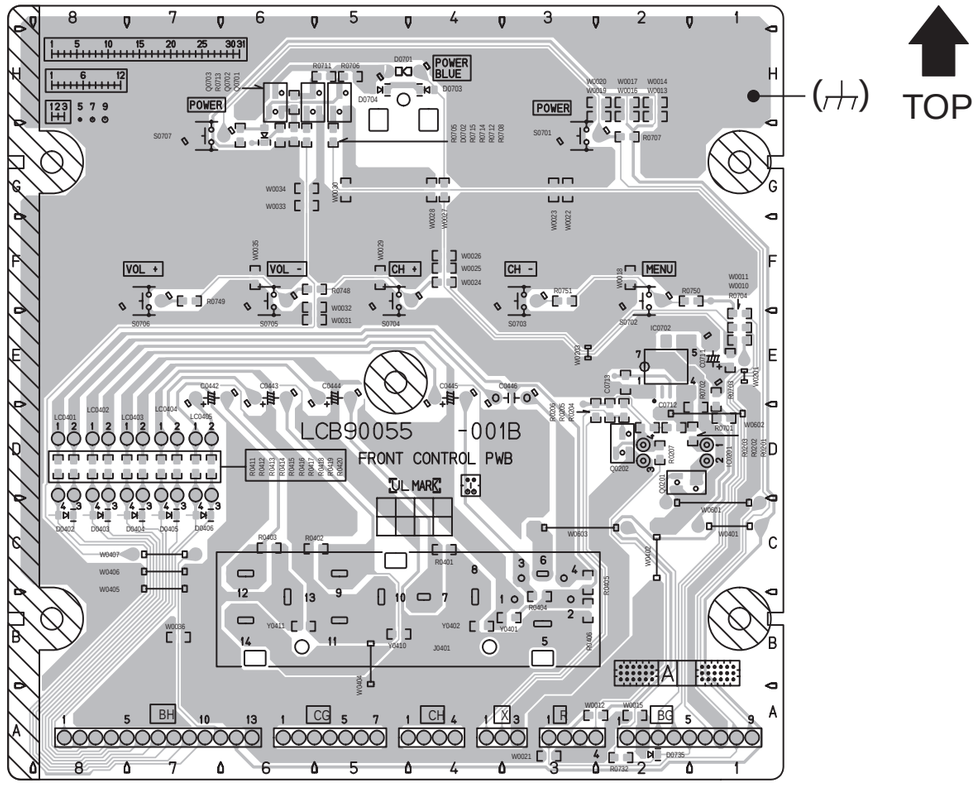
FRONT RELAY PWB PATTERN



REMOCON SENSOR PWB PATTERN



FRONT CONTROL PWB PATTERN



PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied.
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS	
CR	Carbon Resistor
FR	Fusible Resistor
PR	Plate Resistor
VR	Variable Resistor
HV R	High Voltage Resistor
MF R	Metal Film Resistor
MG R	Metal Glazed Resistor
MP R	Metal Plate Resistor
OM R	Metal Oxide Film Resistor
CMF R	Coating Metal Film Resistor
UNF R	Non-Flammable Resistor
CH V R	Chip Variable Resistor
CH MG R	Chip Metal Glazed Resistor
COMP. R	Composition Resistor
LPTC R	Linear Positive Temperature Coefficient Resistor

CAPACITORS	
C CAP.	Ceramic Capacitor
E CAP.	Electrolytic Capacitor
M CAP.	Mylar Capacitor
CH CAP.	Chip Capacitor
HV CAP.	High Voltage Capacitor
MF CAP.	Metalized Film Capacitor
MM CAP.	Metalized Mylar Capacitor
MP CAP.	Metalized Polystyrol Capacitor
PP CAP.	Polypropylene Capacitor
PS CAP.	Polystyrol Capacitor
TF CAP.	Thin Film Capacitor
MPP CAP.	Metalized Polypropylene Capacitor
TAN. CAP.	Tantalum Capacitor
CH C CAP.	Chip Ceramic Capacitor
BP E CAP.	Bi-Polar Electrolytic Capacitor
CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

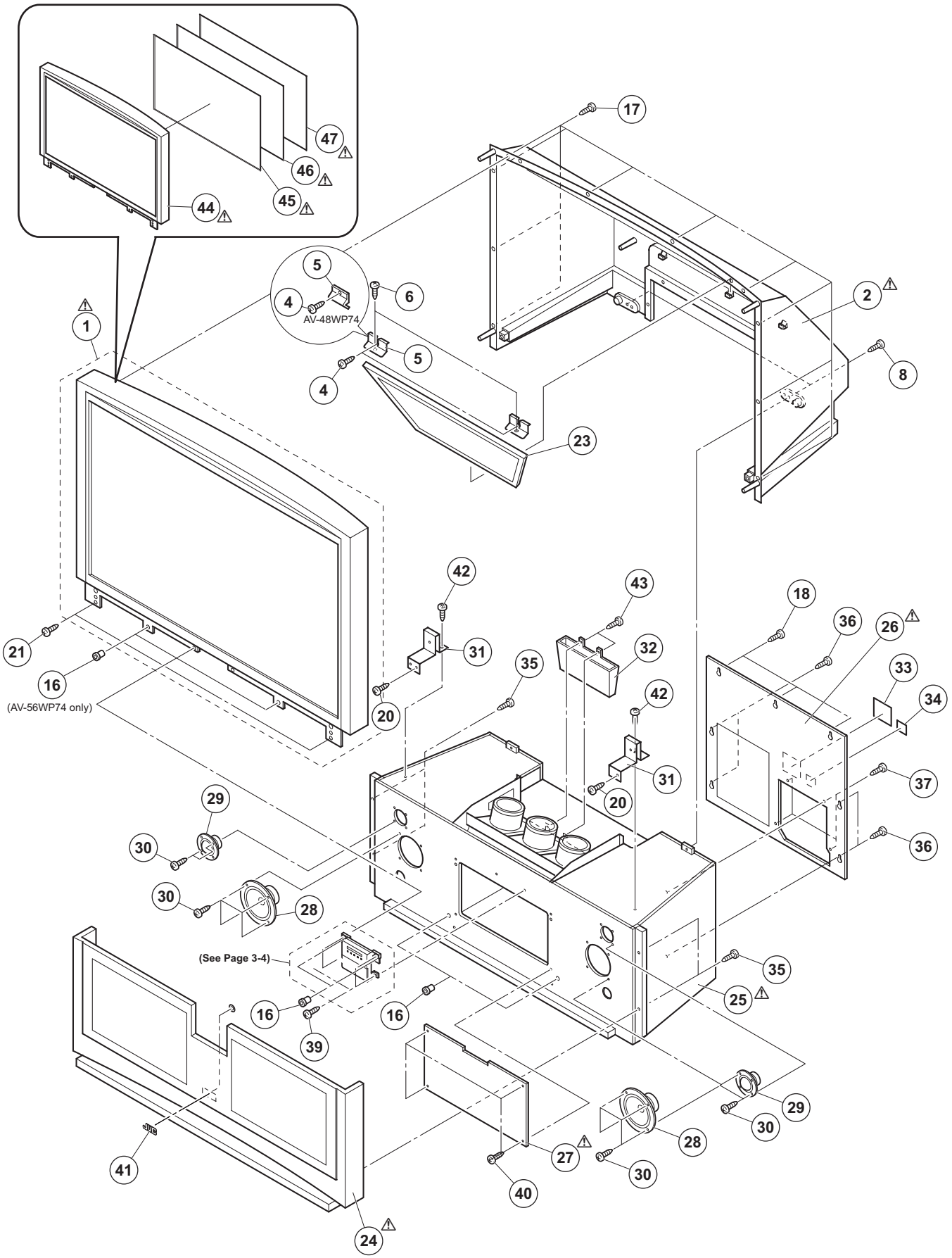
RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

CONTENTS

EXPLODED VIEW PARTS LIST - 1

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	1	48WP74SCSAM2	SCREEN ASSY		AV-48WP74
⚠	1	56WP74SCSAM2	SCREEN ASSY		AV-56WP74
⚠	2	LC11247-001C-A	BACK COVER		AV-48WP74
⚠	2	LC11407-001C-A	BACK COVER		AV-56WP74
	4	QYSBSF4012Z	TAP SCREW	4mm x 12mm(x2)	
	5	LC31752-001A-A	MIRROR BRACKET	(x2)	AV-48WP74
	5	LC41419-001A-A	MIRROR BRACKET	(x2)	AV-56WP74
	6	QYSBSF4012Z	TAP SCREW	4mm x 12mm(x2)	AV-56WP74
	8	QYSBSAG4018M	TAP SCREW	4mm x 18mm(x2)	
	16	LC41237-001A	RUBBER CATCH	(x4)	AV-48WP74
	16	LC41237-001A	RUBBER CATCH	(x6)	AV-56WP74
	17	QYSBSFG4016M	TAP SCREW	4mm x 16mm(x10)	
	18	QYSBSFG4016M	TAP SCREW	4mm x 16mm(x3)	
	19	QYSBSF4012Z	TAP SCREW	4mm x 12mm(x2)	
	20	QYSBSA4012M	TAP SCREW	4mm x 12mm(x2)	
	21	QYSBSAG4018M	TAP SCREW	4mm x 18mm(x2)	
	23	LC31733-001A-A	MIRROR		AV-48WP74
	23	LC31954-001A-A	MIRROR		AV-56WP74
⚠	24	LC11251-001D-A	SPEAKER GRILL		AV-48WP74
⚠	24	LC11406-002A-A	SPEAKER GRILL		AV-56WP74
⚠	25	LC11248-001C-A	BODY		AV-48WP74
⚠	25	LC11408-001A-A	BODY		AV-56WP74
⚠	26	LC20982-003A-A	BACK BOARD		
⚠	27	LC31757-002A-A	FRONT BOARD		
	28	QAS0104-001	SPEAKER	SP01 SP02(x2)	AV-48WP74
	28	QAS0134-001	SPEAKER	SP01 SP02(x2)	AV-56WP74
	29	QAS0105-001	SPEAKER	SP03 SP04(x2)	AV-48WP74
	29	QAS0133-001	SPEAKER	SP03 SP04(x2)	AV-56WP74
	30	QYSBSA4012M	TAP SCREW	4mm x 12mm(x12)	
	31	LC31756-001A-A	BC FITTING	(x2)	
	32	CM22765-001-A	COOLANT PAN		
⚠	33	LC31139-001A-A	RATING LABEL		
	34	LC41424-001A-A	HDCP WARNING		
	35	QYSBSFG4020M	TAP SCREW	4mm x 20mm(x4)	
	36	QYSBSAG4018M	TAP SCREW	4mm x 18mm(x4)	
	37	QYSBSFG4016M	TAP SCREW	4mm x 16mm(x4)	
	39	QYSDSA4015Z	SCREW	4mm x 15mm(x4)	
	40	QYSBSAG4018M	TAP SCREW	4mm x 18mm(x4)	
	41	CM47752-006	BRAND MARK		AV-48WP74
	41	CM47752-004	BRAND MARK		AV-56WP74
	42	QYSPSPD4020Z	SCREW	4mm x 20mm(x2)	
	43	QYSBSF4012Z	TAP SCREW	4mm x 12mm(x2)	
⚠	44	LC11245-001D-A	FRONT PANEL		AV-48WP74
⚠	44	LC11405-003A-A	FRONT PANEL		AV-56WP74
⚠	45	LC31737-001A-A	SC SHIELD 48		AV-48WP74
⚠	45	LC31949-001A-A	SC SHIELD 56		AV-56WP74
⚠	46	LC31744-001A-A	SCREEN LENTI		AV-48WP74
⚠	46	LC31950-001A-A	SCREEN LENTI		AV-56WP74
⚠	47	LC31745-001A-A	SCREEN FRESNEL		AV-48WP74
⚠	47	LC31951-001A-A	SCREEN FRESNEL		AV-56WP74

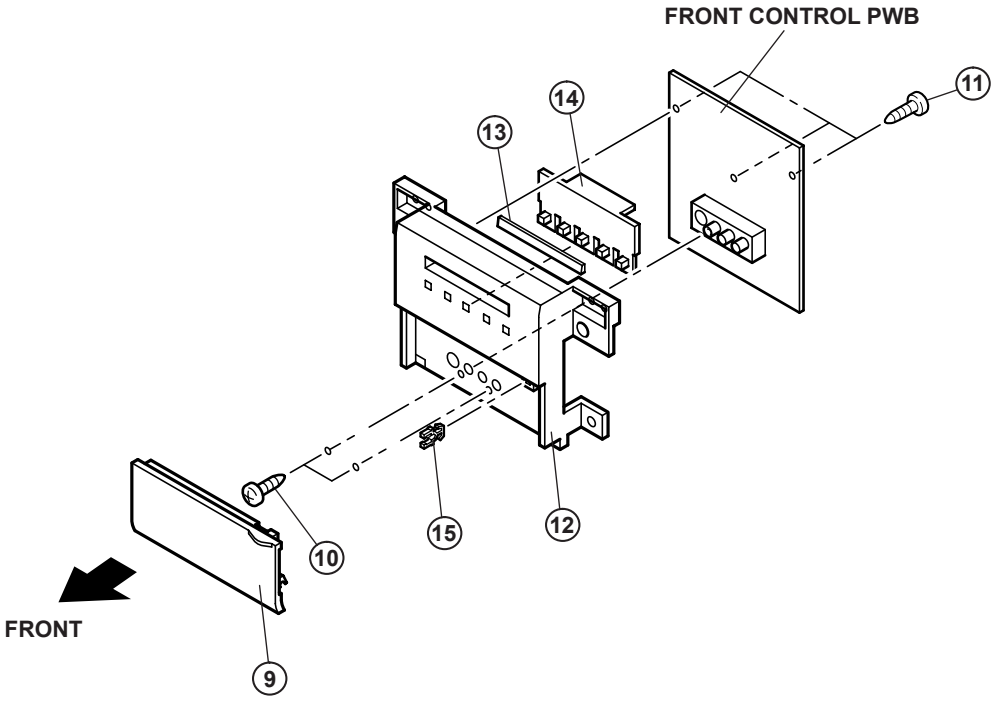
EXPLODED VIEW - 1

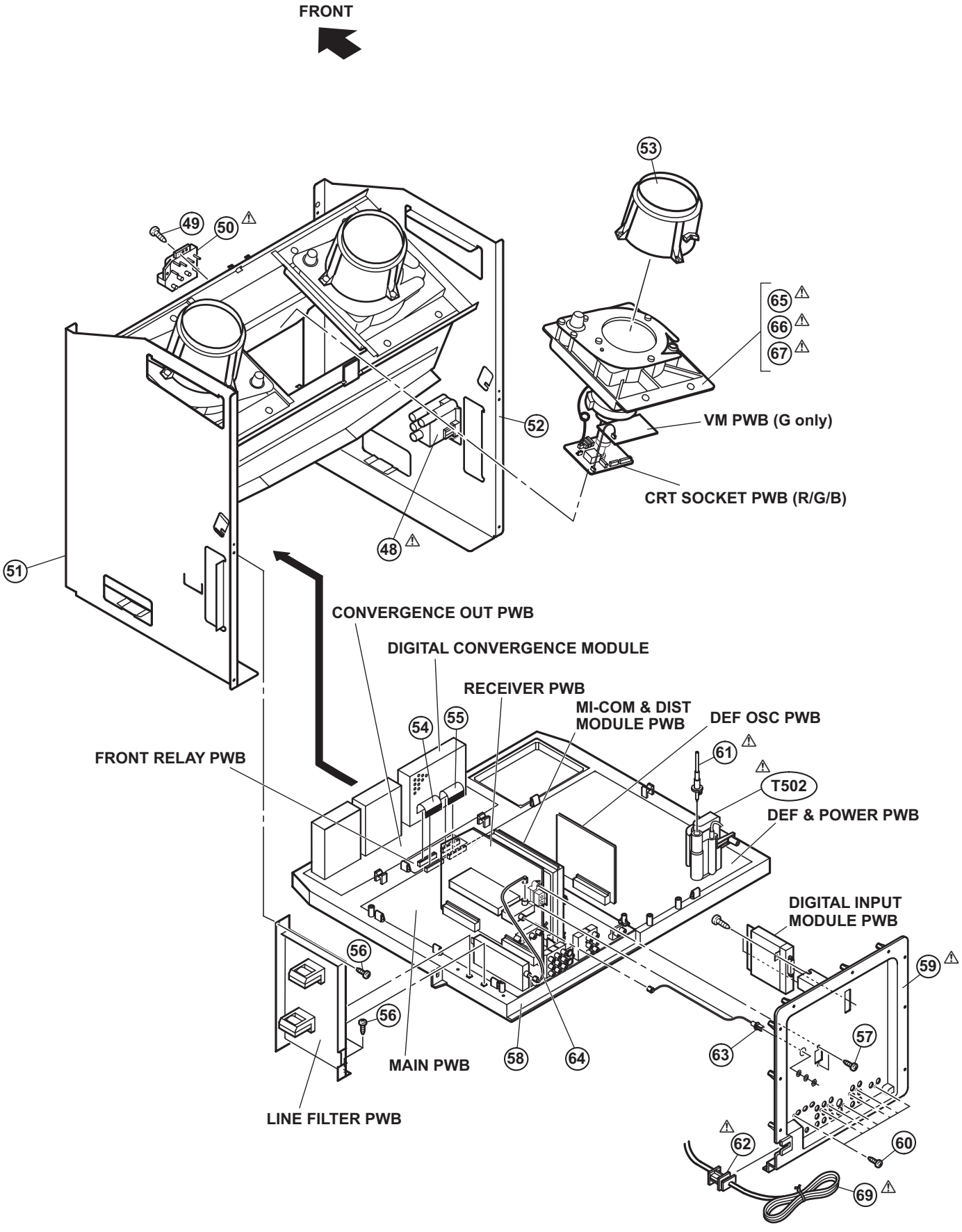


EXPLODED VIEW PARTS LIST - 2

⚠	Ref.No.	Part No.	Part Name	Description	Local
	9	LC31829-001C-A	DOOR		
	10	QYSBSF3012M	TAP SCREW	3mm x 12mm(x2)	
	11	QYSBSF3012M	TAP SCREW	3mm x 12mm(x3)	
	12	LC31883-003A-A	CONTROL PANEL		
	13	LC31749-001A-A	LED LENS		
	14	LC31751-001B-A	KNOB		AV-48WP74
	14	LC31751-002B-A	KNOB		AV-56WP74
	15	PU60109	CATCHER		
⚠	48	QAE0005-001	HV DIVIDER		
	49	QYSBSBG3008Z	TAP SCREW	3mm x 8mm	
⚠	50	QAE0006-001	FOCUS PACK		
	51	LC20977-002A-A	UNIT BRACKET R		
	52	LC20977-001A-A	UNIT BRACKET L		
	53	LC31735-001A-A	PJ LENS	(x3)	AV-48WP74
	53	LC31736-001A-A	PJ LENS	(x3)	AV-56WP74
	54	QUQ212-1708CG	FFC WIRE		
	55	QUQ212-1306CF	FFC WIRE		
	56	QYSBSF4012Z	TAP SCREW	4mm x 12mm(x3)	
	57	QYSBSF3012M	TAP SCREW	3mm x 12mm(x2)	
	58	LC11249-001B-A	CHASSIS BASE		
⚠	59	LC11511-001A-A	AV BOARD		
	60	QYSBSF3012M	TAP SCREW	3mm x 12mm(x5)	
⚠	61	QNZ0563-001	ANODE WIRE ASSY		
⚠	62	LC20106-001D-A	POWER CORD CLAMP		
	63	QAM0468-001	F CABLE		
	64	WJX0014-001A	E-COAXIAL ASSY		
⚠	65	R CRT BC SA	R CRT ASSY		
⚠	66	G CRT BC SA	G CRT ASSY		
⚠	67	B CRT BC SA	B CRT ASSY		
⚠	69	QMPD200-200-JC	POWER CORD(US/CA)	2m BLACK	
⚠	T502	QQH0113-002	FB TRANSF		

EXPLODED VIEW - 2




FRONT
53
49
50
65
66
67
52
VM PWB (G only)
CRT SOCKET PWB (R/G/B)
48
51
CONVERGENCE OUT PWB
DIGITAL CONVERGENCE MODULE
RECEIVER PWB
MI-COM & DIST MODULE PWB
DEF OSC PWB
54
55
61
T502
FRONT RELAY PWB
DEF & POWER PWB
DIGITAL INPUT MODULE PWB
56
56
59
57
63
MAIN PWB
58
64
LINE FILTER PWB
62
60
69

PRINTED WIRING BOARD PARTS LIST

MAIN PW BOARD ASS'Y
(SSB-1070A-M2) [AV-48WP74]
(SSB-1069A-M2) [AV-56WP74]

⚠Ref No.	Part No.	Part Name	Description	Local
IC1211	TA1318N	IC		
IC1212	TC7W08F-X	IC		
IC1301	AN15852A	IC		
IC1501	CXA2069Q	IC		
IC1502	M62320FP-X	IC		
IC1511	PQ3RD13	IC		
IC1641	NJM2150AM-X	IC		
⚠IC1661	AN5277	IC		
IC1703	AT24LC32-48WP74	IC	(SERVICE)	
IC1801	TA48M033F-X	IC		
IC1941	SI-8090S	IC		
IC1942	SI-8050S	IC		
IC1943	PQ1CG21H2FZ	IC		
IC1981	PQ1CG21H2FZ	IC		
IC1991	PQ12RD11	IC		
IC1993	MM1565AF-X	IC		
IC3001	MN82832	IC		
IC3002	R1170H331B-X	IC		
IC6001	NJM2701M-X	IC		
Q0701	2SK1374-X	MOS FET		
Q0702	2SK1374-X	MOS FET		
Q1101	2SD601A/QR/-X	TRANSISTOR		
Q1102	2SB709A/QR/-X	TRANSISTOR		
Q1103	2SD601A/QR/-X	TRANSISTOR		
Q1232	2SB709A/QR/-X	TRANSISTOR		
Q1301	2SC3837K/NP/-X	TRANSISTOR		
Q1302	2SC3837K/NP/-X	TRANSISTOR		
Q1303	2SC3837K/NP/-X	TRANSISTOR		
Q1401	2SD601A/QR/-X	TRANSISTOR		
Q1668	UN2213-X	DIGI TRANSISTOR		
Q1669	2SD601A/QR/-X	TRANSISTOR		
Q1672	2SD601A/QR/-X	TRANSISTOR		
Q1673	2SB709A/QR/-X	TRANSISTOR		
Q1911	2SA966/OY/-T	TRANSISTOR		
Q1912	2SD601A/QR/-X	TRANSISTOR		
Q1961	2SD601A/QR/-X	TRANSISTOR		
Q1962	2SD601A/QR/-X	TRANSISTOR		
Q1964	2SD601A/QR/-X	TRANSISTOR		
Q1965	UN2213-X	DIGI TRANSISTOR		
Q1981	2SC4685	TRANSISTOR		
Q1982	UN2213-X	DIGI TRANSISTOR		
Q1983	2SD601A/QR/-X	TRANSISTOR		
Q1984	2SC4682-T	TRANSISTOR		
Q3001	2SD601A/QR/-X	TRANSISTOR		
Q3002	2SD601A/QR/-X	TRANSISTOR		
Q3003	2SB709A/QR/-X	TRANSISTOR		
Q3004	2SD601A/QR/-X	TRANSISTOR		
Q3005	2SD601A/QR/-X	TRANSISTOR		
Q3006	2SB709A/QR/-X	TRANSISTOR		
Q3007	2SB709A/QR/-X	TRANSISTOR		
Q3501	2SB709A/QR/-X	TRANSISTOR		
Q3502	2SD601A/QR/-X	TRANSISTOR		
Q3505	2SB709A/QR/-X	TRANSISTOR		
Q3506	2SD601A/QR/-X	TRANSISTOR		
Q3509	2SB709A/QR/-X	TRANSISTOR		
Q3510	2SD601A/QR/-X	TRANSISTOR		
Q6001	2SD601A/QR/-X	TRANSISTOR		
Q6002	2SD601A/QR/-X	TRANSISTOR		
D1093	MA8082/M/-X	Z DIODE		
D1301	MA8100/M/-X	Z DIODE		
D1302	MA8100/M/-X	Z DIODE		
D1303	MA8100/M/-X	Z DIODE		
D1401	MA111-X	SI DIODE		
D1402	UDZS5.1B-X	Z DIODE		
D1403	MA111-X	SI DIODE		
D1595	MA8100/M/-X	Z DIODE		
D1596	MA8100/M/-X	Z DIODE		
D1598	MA8100/M/-X	Z DIODE		
D1599	MA8100/M/-X	Z DIODE		
D1662	MA3330/L/-X	Z DIODE		
D1663	MA3330/L/-X	Z DIODE		
D1667	MA111-X	SI DIODE		
D1668	MA111-X	SI DIODE		
D1669	MA111-X	SI DIODE		
D1702	MA111-X	SI DIODE		
D1703	MA111-X	SI DIODE		
D1704	MA8100/M/-X	Z DIODE		
D1705	MA8100/M/-X	Z DIODE		
D1801	1SR35-400A-T2	SI DIODE		
D1802	MA111-X	SI DIODE		
D1803	MA111-X	SI DIODE		
D1891	MA8082/M/-X	Z DIODE		
D1892	MA8082/M/-X	Z DIODE		
D1893	MA8051/M/-X	Z DIODE		
D1894	MA8051/M/-X	Z DIODE		
D1941	RK34-LFC4	SB DIODE		
D1942	D3S4M-F1P20	SB DIODE		
D1943	RK34-LFC4	SB DIODE		
D1945	MA111-X	SI DIODE		
D1946	MA111-X	SI DIODE		
D1962	MA3030/H/-X	Z DIODE		
D1964	MA111-X	SI DIODE		
D1965	MA111-X	SI DIODE		
D1967	PTZ6.8B-X	Z DIODE		
D1968	PTZ6.8B-X	Z DIODE		
D1969	PTZ11B-X	Z DIODE		
D1981	RK34-LFC4	SB DIODE		
D1982	PTZ6.8B-X	Z DIODE		
D1991	MA111-X	SI DIODE		
D1993	MA111-X	SI DIODE		
D2101	MA8100/M/-X	Z DIODE		
D2121	MA8100/M/-X	Z DIODE		
D2201	MA8100/M/-X	Z DIODE		
D2204	MA8100/M/-X	Z DIODE		
D2205	MA8100/M/-X	Z DIODE		
D2206	MA8100/M/-X	Z DIODE		
D2207	MA8100/M/-X	Z DIODE		
D2209	MA8100/M/-X	Z DIODE		
D2210	MA8100/M/-X	Z DIODE		
D2212	MA8100/M/-X	Z DIODE		
D2213	MA8100/M/-X	Z DIODE		
D2214	MA8100/M/-X	Z DIODE		
D2215	MA8100/M/-X	Z DIODE		
D2216	MA8100/M/-X	Z DIODE		
D2217	MA8100/M/-X	Z DIODE		
D2218	MA8100/M/-X	Z DIODE		
D2219	MA8100/M/-X	Z DIODE		
D2220	MA8100/M/-X	Z DIODE		
D2402	MA8100/M/-X	Z DIODE		
D2403	MA8100/M/-X	Z DIODE		
D2404	MA8100/M/-X	Z DIODE		
D2406	MA8100/M/-X	Z DIODE		
D2421	MA8100/M/-X	Z DIODE		
D2422	MA8100/M/-X	Z DIODE		
C1102	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C1103	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1111	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1112	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1113	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1213	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1214	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C1215	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V J	
C1216	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z	
C1218	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1219	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z	
C1233	NDC31HJ-180X	C CAPACITOR	18pF 50V J	
C1301	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1302	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1303	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1304	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1305	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1306	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1307	QETN1CM-106Z	E CAPACITOR	10uF 16V M	
C1311	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1312	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1313	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1314	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1315	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1318	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1321	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1322	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1323	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1324	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1325	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1326	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C1327	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C1328	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C1329	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C1331	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1332	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	

⚠Ref No.	Part No.	Part Name	Description	Local
C1333	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1341	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1342	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1343	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1351	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1352	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1353	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1354	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1355	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1356	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1366	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1367	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1368	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1371	QETN1CM-336Z	E CAPACITOR	33uF 16V M	
C1372	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1381	QETN1CM-336Z	E CAPACITOR	33uF 16V M	
C1382	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1391	QETN1CM-336Z	E CAPACITOR	33uF 16V M	
C1392	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1403	QETN1AM-108Z	E CAPACITOR	1000uF 10V M	
C1404	QETN1AM-108Z	E CAPACITOR	1000uF 10V M	
C1405	QETN0JM-108Z	E CAPACITOR	1000uF 6.3V M	
C1406	QETN1AM-108Z	E CAPACITOR	1000uF 10V M	
C1409	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1410	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1411	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1412	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1415	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1416	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C1417	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1418	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C1421	QETN0JM-108Z	E CAPACITOR	1000uF 6.3V M	
C1423	QETN1HM-476Z	E CAPACITOR	47uF 50V M	
C1430	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1431	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1432	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1433	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C1442	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C1505	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C1510	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M	
C1519	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C1532	QETN1HM-226Z	E CAPACITOR	22uF 50V M	
C1539	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C1540	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C1579	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C1598	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C1599	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C1641	QENC1HM-106Z	BP E CAPACITOR	10uF 50V M	
C1642	NCB31HK-153X	C CAPACITOR	0.015uF 50V K	48WP74
C1642	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	56WP74
C1643	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	48WP74
C1643	NCB31CK-333X	C CAPACITOR	0.033uF 16V K	56WP74
C1645	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C1646	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C1647	QETN1HM-226Z	E CAPACITOR	22uF 50V M	
C1648	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1651	QENC1HM-106Z	BP E CAPACITOR	10uF 50V M	
C1652	NCB31HK-153X	C CAPACITOR	0.015uF 50V K	48WP74
C1652	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	56WP74
C1653	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	48WP74
C1653	NCB31CK-333X	C CAPACITOR	0.033uF 16V K	56WP74
C1663	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C1665	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C1667	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1668	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C1669	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1670	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1671	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C1672	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1673	QETN1HM-107Z	E CAPACITOR	100uF 50V M	
C1674	QETM1HM-108	E CAPACITOR	1000uF 50V M	
C1675	QFV21HJ-124Z	MF CAPACITOR	0.12uF 50V J	
C1676	QFV21HJ-124Z	MF CAPACITOR	0.12uF 50V J	
C1677	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C1678	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C1679	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C1680	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1696	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1697	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C1702	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C1802	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C1803	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C1941	QETN1VM-108Z	E CAPACITOR	1000uF 35V M	
C1942	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	
C1944	QETN1VM-108Z	E CAPACITOR	1000uF 35V M	
C1945	QEZ0256-128	E CAPACITOR	1200uF 10V M	
C1947	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C1948	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C1949	QETN0JM-108Z	E CAPACITOR	1000uF 6.3V M	
C1950	QETN0JM-108Z	E CAPACITOR	1000uF 6.3V M	
C1951	QETN1VM-108Z	E CAPACITOR	1000uF 35V M	
C1952	QETN1AM-108Z	E CAPACITOR	1000uF 10V M	
C1953	QETN0JM-108Z	E CAPACITOR	1000uF 6.3V M	
C1954	QETN0JM-108Z	E CAPACITOR	1000uF 6.3V M	
C1955	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C1961	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C1981	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C1984	QETN1VM-477Z	E CAPACITOR	470uF 35V M	
C1985	QETN0JM-108Z	E CAPACITOR	1000uF 6.3V M	
C1989	QETN1AM-108Z	E CAPACITOR	1000uF 10V M	
C1991	QETN1EM-107Z	E CAPACITOR	100uF 25V M	
C1992	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C1994	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C1995	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C1996	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C2101	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C2102	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C2103	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C2104	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C2105	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C2106	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C2121	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C2123	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C2124	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C2126	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C2127	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C2128	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C2144	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C2145	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C2146	NCB11CK-225X	C CAPACITOR	2.2uF 16V K	
C2302	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C2303	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C2322	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C2323	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C2342	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C2343	NCB11CK-105X	C CAPACITOR	1uF 16V K	
C3001	QENC1AM-336Z	BP E CAPACITOR	33uF 10V M	
C3002	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C3003	NDC31HJ-121X	C CAPACITOR	120pF 50V J	
C3004	NDC31HJ-150X	C CAPACITOR	15pF 50V J	
C3005	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z	
C3006	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3007	NCB31AK-334X	C CAPACITOR	0.33uF 10V K	
C3008	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C3009	NDC31HJ-121X	C CAPACITOR	120pF 50V J	
C3010	NDC31HJ-150X	C CAPACITOR	15pF 50V J	
C3011	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z	
C3012	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3013	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3014	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C3015	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3016	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3017	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C3018	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3019	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3020	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3021	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3022	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3023	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3024	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3025	QETN1CM-106Z	E CAPACITOR	10uF 16V M	
C3026	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3027	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J	
C3028	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J	
C3029	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3030	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3031	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3032	NDC31HJ-560X	C CAPACITOR	56pF 50V J	
C3033	NDC31HJ-330X	C CAPACITOR	33pF 50V J	
C3034	NDC31HJ-560X	C CAPACITOR	56pF 50V J	
C3035	NDC31HJ-330X	C CAPACITOR	33pF 50V J	
C3036	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3037	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3038	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3039	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3041	QETN1CM-106Z	E CAPACITOR	10uF 16V M	
C3042	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3044	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3045	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3046	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3047	QETN1CM-106Z	E CAPACITOR	10uF 16V M	
C3048	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3049	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3050	NCB31HK-472X	C CAPACITOR	4700pF 50V K	

⚠Ref No.	Part No.	Part Name	Description	Local
C3051	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3052	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3053	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3054	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3055	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3056	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3057	QETN1CM-106Z	E CAPACITOR	10uF 16V M	
C3058	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3059	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C3060	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3061	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C3062	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3063	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C3064	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3065	QETN1CM-106Z	E CAPACITOR	10uF 16V M	
C3066	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3067	QETN1CM-476Z	E CAPACITOR	47uF 16V M	
C3068	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3069	QETN1CM-476Z	E CAPACITOR	47uF 16V M	
C3070	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3071	QETN1CM-476Z	E CAPACITOR	47uF 16V M	
C3072	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3077	NCB31AK-334X	C CAPACITOR	0.33uF 10V K	
C3078	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3079	NDC31HJ-470X	C CAPACITOR	47pF 50V J	
C3080	QBTC1CK-106Z	TA E CAPACITOR	10uF 16V K	
C3082	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C3086	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C3088	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C3089	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C3090	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C3099	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3100	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C3501	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3502	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C3503	NDC31HJ-121X	C CAPACITOR	120pF 50V J	
C3504	NDC31HJ-150X	C CAPACITOR	15pF 50V J	
C3506	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z	
C3507	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3508	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C3509	NDC31HJ-121X	C CAPACITOR	120pF 50V J	
C3510	NDC31HJ-150X	C CAPACITOR	15pF 50V J	
C3512	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z	
C3513	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C3514	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C3515	NDC31HJ-121X	C CAPACITOR	120pF 50V J	
C3516	NDC31HJ-150X	C CAPACITOR	15pF 50V J	
C3518	NCF11CZ-475X	C CAPACITOR	4.7uF 16V Z	
C3519	QENC1CM-336Z	BP E CAPACITOR	33uF 16V M	
C3520	QENC1CM-336Z	BP E CAPACITOR	33uF 16V M	
C3521	QENC1CM-336Z	BP E CAPACITOR	33uF 16V M	
C6001	QENC1HM-106Z	BP E CAPACITOR	10uF 50V M	
C6002	QENC1HM-106Z	BP E CAPACITOR	10uF 50V M	
C6003	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C6004	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C6005	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C6006	NCB31CK-273X	C CAPACITOR	0.027uF 16V K	
C6007	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C6008	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C6009	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C6010	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
R0511	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0606	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0705	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0706	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1097	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1102	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1103	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1105	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1119	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1120	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1121	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1125	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1126	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1127	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1128	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1132	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1133	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1134	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1135	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R1202	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1203	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1213	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1214	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1218	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R1219	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	

⚠Ref No.	Part No.	Part Name	Description	Local
R1220	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1221	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1226	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1228	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1229	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R1230	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1231	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1232	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R1234	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R1236	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R1240	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1301	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1302	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1337	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R1347	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R1372	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1374	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R1375	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1379	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R1382	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1384	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R1385	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1392	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1394	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R1395	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1401	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1402	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1407	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1409	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1421	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R1422	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1423	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R1501	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R1502	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R1504	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R1507	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R1508	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R1509	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R1514	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1515	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1516	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1517	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1518	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1519	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1520	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1521	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1522	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1523	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1524	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1525	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1526	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1527	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1528	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1529	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1530	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1533	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1534	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1535	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1536	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1537	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1538	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1539	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1543	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R1547	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1548	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1549	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1550	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1551	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1552	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1571	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1577	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1578	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1579	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1582	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1598	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R1599	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R1611	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R1612	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R1613	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1614	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1615	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R1616	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R1619	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1641	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1642	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R1643	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R1646	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

⚠Ref No.	Part No.	Part Name	Description	Local
R1647	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1649	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1651	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1652	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R1653	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R1656	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1658	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1659	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1661	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1663	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1665	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1666	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1667	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1668	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1669	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1670	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R1671	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	
R1672	QRJ146J-2R2X	UNF C RESISTOR	2.2Ω 1/4W J	
R1673	QRK126J-102X	UNF C RESISTOR	1kΩ 1/2W J	
R1674	QRK126J-102X	UNF C RESISTOR	1kΩ 1/2W J	
R1680	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R1681	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R1682	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1691	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R1693	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1702	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1703	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R1891	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1892	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1894	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1895	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1896	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R1897	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R1910	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1911	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R1912	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R1913	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R1914	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
⚠R1941	QRK126J-5R6X	UNF C RESISTOR	5.6Ω 1/2W J	
R1942	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R1943	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
⚠R1944	QRK126J-220X	UNF C RESISTOR	22Ω 1/2W J	
R1945	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1946	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1947	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R1949	NRSA63D-122X	MG RESISTOR	1.2kΩ 1/16W D	
R1950	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R1952	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R1953	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R1954	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1959	NRSA63D-182X	MG RESISTOR	1.8kΩ 1/16W D	
R1961	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1962	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R1963	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R1964	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R1965	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1966	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R1967	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R1968	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1969	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R1972	QRT039J-8R2	MF RESISTOR	8.2Ω 3W J	
R1973	QRL039J-100	OMF RESISTOR	10Ω 3W J	
R1981	QRK126J-181X	UNF C RESISTOR	180Ω 1/2W J	
R1982	NRSA63D-122X	MG RESISTOR	1.2kΩ 1/16W D	
R1983	NRSA63D-122X	MG RESISTOR	1.2kΩ 1/16W D	
R1984	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R1985	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R1986	QRK126J-331X	UNF C RESISTOR	330Ω 1/2W J	
R1987	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R1991	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R1992	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R2102	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R2103	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R2104	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R2105	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R2106	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R2122	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R2123	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R2125	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R2126	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R2127	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R2144	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R2145	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R2146	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R2305	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R2308	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R2310	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R2325	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R2328	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R2330	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R2345	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R2348	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R2350	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3001	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R3002	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R3003	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3004	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R3005	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	
R3006	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R3007	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R3008	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3009	NRSA63D-102X	MG RESISTOR	1kΩ 1/16W D	
R3010	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R3011	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3012	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R3013	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R3014	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3015	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R3016	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	
R3017	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R3018	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R3019	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3020	NRSA63D-102X	MG RESISTOR	1kΩ 1/16W D	
R3021	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R3022	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3023	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R3024	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R3025	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R3026	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R3027	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R3028	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R3029	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R3030	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R3031	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3032	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3033	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3035	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3036	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3037	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3039	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3040	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3042	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R3043	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3044	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3045	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3047	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R3048	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R3049	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R3050	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R3051	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R3052	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R3053	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R3054	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R3055	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R3056	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3057	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
R3058	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R3059	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R3060	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R3061	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3062	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3063	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3064	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3065	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3066	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3071	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3072	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3073	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3074	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3075	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3076	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3077	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3078	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3079	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3080	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3081	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3082	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3501	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3502	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3503	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R3504	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	
R3505	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R3507	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3508	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

⚠Ref No.	Part No.	Part Name	Description	Local
R3509	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R3511	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3516	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J	
R3517	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3518	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3519	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R3520	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	
R3521	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R3523	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3525	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R3532	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J	
R3533	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3534	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3535	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R3536	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	
R3537	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R3539	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3541	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R3548	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J	
R3549	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R3550	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R3551	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3552	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R3553	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R3554	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R3555	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R6001	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R6002	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R6003	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R6004	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R6006	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R6007	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R6008	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R6009	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R6011	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R6012	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
RA3001	NRZ0040-103X	NET RESISTOR	10kΩ 1/16W J x4	
RA3002	NRZ0040-103X	NET RESISTOR	10kΩ 1/16W J x4	
RA3003	NRZ0040-103X	NET RESISTOR	10kΩ 1/16W J x4	
RA3004	NRZ0040-103X	NET RESISTOR	10kΩ 1/16W J x4	
L1102	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J	
L1211	QQL25CK-100Z	COIL	10uH K	
L1301	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J	
L1302	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J	
L1401	QQL25CK-100Z	COIL	10uH K	
L1402	QQL26AK-100Z	COIL	10uH K	
L1941	QQR1129-003	CHOKE COIL		
L1942	QQR1129-003	CHOKE COIL		
L1943	QQL26AK-330Z	COIL	33uH K	
L1944	QQL26AK-330Z	COIL	33uH K	
L1945	QQL26AK-220Z	COIL	22uH K	
L1946	QQL26AK-220Z	COIL	22uH K	
L1947	QQR1129-003	CHOKE COIL		
L1948	QQL26AK-100Z	COIL	10uH K	
L1949	QQL26AK-220Z	COIL	22uH K	
L1950	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J	
L1981	QQR1129-003	CHOKE COIL		
L1982	QQL26AK-220Z	COIL	22uH K	
L1983	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J	
L3001	NQL092K-6R8X	P COIL	6.8uH K	
L3002	NQL092K-6R8X	P COIL	6.8uH K	
L3003	NQR0413-003X	FERRITE BEADS		
L3004	NQR0413-003X	FERRITE BEADS		
L3005	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
L3006	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
L3007	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
L3501	NQL092K-6R8X	P COIL	6.8uH K	
L3502	NQL092K-6R8X	P COIL	6.8uH K	
L3503	NQL092K-6R8X	P COIL	6.8uH K	
CN1001	QGB1506L1-16	CONNECTOR	B-B (1-16)	
CN1002	QGB1506L1-16	CONNECTOR	B-B (1-16)	
CN1003	QGB1506L1-16	CONNECTOR	B-B (1-16)	
CN1004	QGC2508C1-C0	CONNECTOR	(1-120)	
CN1005	QGB1505J1-15	CONNECTOR	B-B (1-15)	
CN1006	QGB1505J1-35	CONNECTOR	B-B (1-35)	
CN100G	QGF1201C2-17	CONNECTOR	FFC/FPC (1-17)	
CN100H	QGF1201C2-13	CONNECTOR	FFC/FPC (1-13)	
J1091	QNS0001-001	3.5 JACK	COMPULINK	
J2101	QNN0521-001	PIN JACK	V/L/R	
J2111	QND0104-001	S JACK	S-VIDEO IN	
J2121	QNN0535-001	PIN JACK	COMPONENT IN	
J2141	QNN0536-001	PIN JACK	DIGITAL IN	
K1301	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K1303	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K1304	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K1305	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K1306	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K1307	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K1943	CE42050-001Z	BEADS CORE		
K1944	CE42050-001Z	BEADS CORE		
K3001	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
LC1301	QQR1199-001	EMI FILTER		
LC1302	QQR1199-001	EMI FILTER		
LC1303	QQR1199-001	EMI FILTER		
LC2301	QQR1199-001	EMI FILTER		
LC2302	QQR1199-001	EMI FILTER		
LC2303	QQR1199-001	EMI FILTER		
LC2321	QQR1199-001	EMI FILTER		
LC2322	QQR1199-001	EMI FILTER		
LC2323	QQR1199-001	EMI FILTER		
LC2341	QQR1199-001	EMI FILTER		
LC2342	QQR1199-001	EMI FILTER		
LC2343	QQR1199-001	EMI FILTER		
LC3001	NQR0450-002X	EMI FILTER	22pF 50V M	
LC3002	NQR0450-002X	EMI FILTER	22pF 50V M	
LC3003	NQR0415-005X	EMI FILTER	0.1uF 25V M	
LC3004	NQR0450-004X	EMI FILTER	100pF 50V M	
LC3005	NQR0450-002X	EMI FILTER	22pF 50V M	
LC3006	NQR0450-004X	EMI FILTER	100pF 50V M	
LC3007	NQR0450-002X	EMI FILTER	22pF 50V M	
LC3008	NQR0450-002X	EMI FILTER	22pF 50V M	
LC3501	NQR0450-004X	EMI FILTER	100pF 50V M	
LC3502	NQR0450-004X	EMI FILTER	100pF 50V M	
LC3503	NQR0450-004X	EMI FILTER	100pF 50V M	
SL1211	CSB503F30-T2	C RESONATOR		
TU1101	QAU0303-001	TUNER	MAIN	
X3001	NAX0570-001X	CRYSTAL	27.000MHz	
Y1502	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1504	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1661	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1662	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1663	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1664	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1821	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1914	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1916	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1917	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1952	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J	
Y1954	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J	
Y1991	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1992	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J	
Y1994	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y1995	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

POWER & DEF PW BOARD ASS'Y (SSB-2070A-M2) [AV-48WP74] (SSB-2069A-M2) [AV-56WP74]

⚠Ref No.	Part No.	Part Name	Description	Local
⚠IC401	LA7876NZ	IC		
⚠IC911	STR-F6629B/F7	IC		
IC921	SE140N	IC		
Q401	2SC3311A/QR/-T	TRANSISTOR		
Q402	2SC3311A/QR/-T	TRANSISTOR		
Q501	BSN304-T	MOS FET		
⚠Q503	2SC5904-RL	POW TRANSISTOR		
Q521	2SC3311A/QR/-T	TRANSISTOR		
Q531	IRFI620G	POWER MOS FET		
Q532	2SC1959/Y/-T	TRANSISTOR		
Q533	2SA562TM/Y/-T	TRANSISTOR		
Q951	2SC1627A/Y/-T	TRANSISTOR		
Q952	2SC3311A/QR/-T	TRANSISTOR		
Q953	2SC3311A/QR/-T	TRANSISTOR		
Q954	2SC3311A/QR/-T	TRANSISTOR		
Q971	2SA1208/ST/Z1-T	TRANSISTOR		
D201	1SR35-400A-T2	SI DIODE		
D401	MTZJ75-T2	Z DIODE		
D402	1SR35-400A-T2	SI DIODE		
D403	1SS133-T2	SI DIODE		
D404	MTZJ9.1B-T2	Z DIODE		
D405	1SS133-T2	SI DIODE		
D406	MTZJ6.8C-T2	Z DIODE		
D407	1SR35-400A-T2	SI DIODE		
D501	1SS81-T5	SI DIODE		
D504	RG2A-LFC4	SI DIODE		
D505	V11CA-C1	SI DIODE		

⚠Ref No.	Part No.	Part Name	Description	Local
D506	FMV-3FU-F1	SI DIODE		
D521	MTZJ12C-T2	Z DIODE		
D522	1SS81-T5	SI DIODE		
D531	RGP10J-5025-T3	SI DIODE		
D561	MTZJ7.5S-T2	Z DIODE		
D562	MTZJ7.5S-T2	Z DIODE		
D583	1SS133-T2	SI DIODE		
D801	EU2-T3	SI DIODE		
D802	EU2-T3	SI DIODE		
D803	RU30A-F1	SI DIODE		
D811	1SR124-400A-T2	SI DIODE		
⚠D901	RBV-606	BRIDGE DIODE		
D910	MA700A-T2	SB DIODE		
⚠D911	RGP10J-5025-T3	SI DIODE		
D912	AU01Z-T2	FR DIODE		
D913	AU01Z-T2	FR DIODE		
D914	1SS133-T2	SI DIODE		
D915	SARS01-T2	SI DIODE		
D916	1SS133-T2	SI DIODE		
D917	MTZJ27B-T2	Z DIODE		
D918	MTZJ5.1B-T2	Z DIODE		
D920	1SS133-T2	SI DIODE		
D931	RU4AM-F1	SI DIODE		
D932	RU30A-F1	SI DIODE		
D934	RU4AM-F1	SI DIODE		
D935	RU3YX-LFC4	SI DIODE		
D936	FMX-G12S	SI DIODE		
D937	EU2-T3	SI DIODE		
D938	FMX-G12S	SI DIODE		
D941	MTZJ33B-T2	Z DIODE		
D952	MTZJ12C-T2	Z DIODE		
D953	1SS244-T2	SI DIODE		
D954	1SS133-T2	SI DIODE		
D956	1SS133-T2	SI DIODE		
D958	MTZJ6.8C-T2	Z DIODE		
D959	1SS133-T2	SI DIODE		
D972	MTZJ15B-T2	Z DIODE		
D973	1SS133-T2	SI DIODE		
⚠PC921	PC123FY2	PHOTO COUPLER		
C201	QFV21HJ-334Z	MF CAPACITOR	0.33uF 50V J	
C401	QETN1VM-108Z	E CAPACITOR	1000uF 35V M	
C402	QFN31HJ-152Z	M CAPACITOR	1500pF 50V J	
C403	QCS32HJ-180Z	C CAPACITOR	18pF 500V J	
C404	QFLC2AJ-104Z	M CAPACITOR	0.1uF 100V J	
C405	QFV21HJ-104Z	MF CAPACITOR	0.1uF 50V J	
C406	QETN1VM-107Z	E CAPACITOR	100uF 35V M	
C407	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C408	QFLC2AJ-104Z	M CAPACITOR	0.1uF 100V J	
C409	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C411	QCB31HK-222Z	C CAPACITOR	2200pF 50V K	
C412	QENC1CM-226Z	BP E CAPACITOR	22uF 16V M	
C413	QENC1CM-226Z	BP E CAPACITOR	22uF 16V M	
C416	QCB31HK-682Z	C CAPACITOR	6800pF 50V K	
C417	QETN1VM-107Z	E CAPACITOR	100uF 35V M	
C501	QCB32HK-331Z	C CAPACITOR	330pF 500V K	
C502	QFN32DK-103	M CAPACITOR	0.01uF 200V K	
C503	QFV21HJ-224Z	MF CAPACITOR	0.22uF 50V J	
⚠C506	QFZ0122-452	MPP CAPACITOR	4500pF 1.8kV H	
⚠C507	QFZ0122-392	MPP CAPACITOR	3900pF 1.8kV H	
C508	QFP32JJ-153	PP CAPACITOR	0.015uF 630V J	
⚠C509	QFZ0128-154	MPP CAPACITOR	0.15uF DC400V H	
⚠C510	QFZ0197-154	MPP CAPACITOR	0.15uF 250V J	
⚠C511	QFZ0128-254	MPP CAPACITOR	0.25uF DC400V H	
C513	QEZ0414-226	BP E CAPACITOR	22uF	
C514	QCS32HJ-561	C CAPACITOR	560pF 500V J	
C521	QCZ0122-681	C CAPACITOR	680pF 2kV K	
C522	QCZ0122-681	C CAPACITOR	680pF 2kV K	
C523	QFN32AJ-682Z	M CAPACITOR	6800pF 100V J	
C524	QCS31HJ-470Z	C CAPACITOR	47pF 50V J	
C525	QCB31HK-682Z	C CAPACITOR	6800pF 50V K	
C527	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C533	QCS32HJ-561	C CAPACITOR	560pF 500V J	
C534	QFN32DK-222Z	M CAPACITOR	2200pF 200V K	
C536	QFN32DK-222Z	M CAPACITOR	2200pF 200V K	
C562	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C591	QEZ0203-107	E CAPACITOR	100uF 160V M	
C701	QFLC2AJ-273Z	M CAPACITOR	0.027uF 100V J	
C801	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C802	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C803	QETM2EM-336	E CAPACITOR	33uF 250V M	
C811	QETN1VM-107Z	E CAPACITOR	100uF 35V M	
⚠C902	QFZ9072-104	MM CAPACITOR	0.1uF AC250V K	
⚠C904	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	
⚠C905	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	
⚠C906	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	
C907	QEZ0572-128	E CAPACITOR	1200uF 200V M	
⚠C908	QCZ9054-102	C CAPACITOR	1000pF AC250V Z	
C912	QCZ0340-332	C CAPACITOR	3300pF 2kV K	
C913	QFLC1HJ-471Z	M CAPACITOR	470pF 50V J	
C914	QETN1HM-227Z	E CAPACITOR	220uF 50V M	
C916	QCS31HJ-331Z	C CAPACITOR	330pF 50V J	
C917	QFN31HJ-182Z	M CAPACITOR	1800pF 50V J	
C918	QFV41HJ-104Z	MF CAPACITOR	0.1uF 50V J	
C919	QFP32GJ-103	PP CAPACITOR	0.01uF 400V J	
C920	QCZ0115-151Z	C CAPACITOR	150pF 2kV K	
C930	QCS31HJ-181Z	C CAPACITOR	180pF 50V J	
C931	QEZ0203-227	E CAPACITOR	220uF 160V M	
C932	QETM1EM-228	E CAPACITOR	2200uF 25V M	
C934	QETM1VM-228	E CAPACITOR	2200uF 35V M	
C935	QETM1VM-228	E CAPACITOR	2200uF 35V M	
C937	QCZ0340-152	C CAPACITOR	1500pF 2kV K	
C942	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C943	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C944	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C945	QETM1VM-228	E CAPACITOR	2200uF 35V M	
C946	QETN1VM-108Z	E CAPACITOR	1000uF 35V M	
C954	QETN1HM-226Z	E CAPACITOR	22uF 50V M	
C971	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C972	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C973	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
⚠C993	QCZ9074-472	C CAPACITOR	4700pF AC250 M	
⚠C994	QCZ9074-472	C CAPACITOR	4700pF AC250 M	
⚠C995	QCZ9074-472	C CAPACITOR	4700pF AC250 M	
⚠C997	QCZ9074-472	C CAPACITOR	4700pF AC250 M	
⚠C998	QCZ9074-472	C CAPACITOR	4700pF AC250 M	
⚠C999	QCZ9074-472	C CAPACITOR	4700pF AC250 M	
R201	QRA14CF-1803Y	CMF RESISTOR	180kΩ 1/4W F	
R202	QRA14CF-2703Y	CMF RESISTOR	270kΩ 1/4W F	
R203	QRA14CF-2703Y	CMF RESISTOR	270kΩ 1/4W F	
R401	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J	
R402	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R403	QRE121J-180Y	C RESISTOR	18Ω 1/2W J	
R404	QRA14CF-6801Y	CMF RESISTOR	6.8kΩ 1/4W F	
R405	QRA14CF-6801Y	CMF RESISTOR	6.8kΩ 1/4W F	
R406	QRA14CF-1002Y	CMF RESISTOR	10kΩ 1/4W F	
R407	QRA14CF-8200Y	CMF RESISTOR	820Ω 1/4W F	
R408	QRA14CF-8200Y	CMF RESISTOR	820Ω 1/4W F	
R409	QRL029J-221	OMF RESISTOR	220Ω 2W J	
R410	QRT029J-2R2	MF RESISTOR	2.2Ω 2W J	
R411	QRE121J-8R2Y	C RESISTOR	8.2Ω 1/2W J	
R412	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R413	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R415	QRE141J-154Y	C RESISTOR	150kΩ 1/4W J	
R416	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R418	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R420	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R421	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J	
R430	QRE121J-101Y	C RESISTOR	100Ω 1/2W J	
R431	QRE121J-101Y	C RESISTOR	100Ω 1/2W J	
R432	QRE121J-101Y	C RESISTOR	100Ω 1/2W J	
R501	QRE141J-471Y	C RESISTOR	470Ω 1/4W J	
R502	QRE121J-123Y	C RESISTOR	12kΩ 1/2W J	
R503	QRE121J-152Y	C RESISTOR	1.5kΩ 1/2W J	
R504	QRL039J-272	OMF RESISTOR	2.7kΩ 3W J	
R505	QRL039J-272	OMF RESISTOR	2.7kΩ 3W J	
R506	QRE121J-5R6Y	C RESISTOR	5.6Ω 1/2W J	
R512	QRL029J-331	OMF RESISTOR	330Ω 2W J	
R521	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R522	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R523	QRE141J-822Y	C RESISTOR	8.2kΩ 1/4W J	
R524	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J	
R525	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R526	QRE141J-470Y	C RESISTOR	47Ω 1/4W J	
R531	QRL029J-102	OMF RESISTOR	1kΩ 2W J	
R532	QRL029J-820	OMF RESISTOR	82Ω 2W J	
R533	QRL029J-820	OMF RESISTOR	82Ω 2W J	
R534	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R535	QRE141J-470Y	C RESISTOR	47Ω 1/4W J	
R536	QRE141J-470Y	C RESISTOR	47Ω 1/4W J	
R561	QRA14CF-4701Y	CMF RESISTOR	4.7kΩ 1/4W F	
R562	QRA14CF-5601Y	CMF RESISTOR	5.6kΩ 1/4W F	
R565	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R591	QRF154K-3R3	UNF WW RESISTOR	3.3Ω 15W K	
R701	QRG01GJ-220	OMF RESISTOR	22Ω 1W J	
R702	QRE121J-123Y	C RESISTOR	12kΩ 1/2W J	
R703	QRZ0056-103Z	COMP RESISTOR	10kΩ 1/2W K	
R901	QRF154K-R51	UNF WW RESISTOR	0.51Ω 15W K	
R902	QRG01GJ-470	OMF RESISTOR	47Ω 1W J	
R903	QRF154K-R51	UNF WW RESISTOR	0.51Ω 15W K	
R910	QRE121J-152Y	C RESISTOR	1.5kΩ 1/2W J	
R911	QRL029J-183	OMF RESISTOR	18kΩ 2W J	

⚠Ref No.	Part No.	Part Name	Description	Local
R912	QRT029J-R18	MF RESISTOR	0.18Ω 2W J	
R913	QRT029J-R18	MF RESISTOR	0.18Ω 2W J	
R914	QRK126J-681X	UNF C RESISTOR	680Ω 1/2W J	
R916	QRT029J-R22	MF RESISTOR	0.22Ω 2W J	
R917	QRK126J-332X	UNF C RESISTOR	3.3kΩ 1/2W J	
R918	QRE121J-152Y	C RESISTOR	1.5kΩ 1/2W J	
R920	QRE121J-684Y	C RESISTOR	680kΩ 1/2W J	
R941	QRL039J-333	OMF RESISTOR	33kΩ 3W J	
R944	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	
R951	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R952	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R953	QRE121J-181Y	C RESISTOR	180Ω 1/2W J	
R954	QRE121J-221Y	C RESISTOR	220Ω 1/2W J	
R955	QRT039J-1R0	MF RESISTOR	1Ω 3W J	
R959	QRE121J-121Y	C RESISTOR	120Ω 1/2W J	
R960	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R961	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R962	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R963	QRA14CF-4701Y	CMF RESISTOR	4.7kΩ 1/4W F	
R964	QRA14CF-4701Y	CMF RESISTOR	4.7kΩ 1/4W F	
R965	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J	
R966	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R967	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R968	QRA14CF-1802Y	CMF RESISTOR	18kΩ 1/4W F	
R972	QRA14CF-1101Y	CMF RESISTOR	1.1kΩ 1/4W F	
R973	QRA14CF-7501Y	CMF RESISTOR	7.5kΩ 1/4W F	
R975	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J	
R977	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
R978	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J	
⚠R999	QRZ0111-685	C RESISTOR	6.8MΩ 1/2W K	
L501	QQLZ025-180	COIL	18uH	
L502	QQR1230-001	CHOKE COIL		
L504	QQR0915-003	LINEARITY COIL		
L531	QQLZ036-222	COIL	2.2mH J	
L701	QQLZ036-222	COIL	2.2mH J	
L801	QQLZ026-140	COIL	14uH ±7%	
L931	QQL26AK-470Z	COIL	47uH K	
L933	QQL26AK-470Z	COIL	47uH K	
L934	QQLZ018-220	COIL	22uH	
L935	QQL60AK-220	COIL	22uH K	
L936	QQL26AK-220Z	COIL	22uH K	
T501	QQR1111-001	DRIVE TRANSF		
T701	QQR1096-001	DEF TRANSF		
⚠T921	QQS0133-001	SW TRANSF		
CN001	QGB1506M1-16	CONNECTOR	B-B (1-16)	
CN002	QGB1506M1-16	CONNECTOR	B-B (1-16)	
CN003	QGB1506M1-16	CONNECTOR	B-B (1-16)	
CN010	QGB1505J1-35	CONNECTOR	B-B (1-35)	
⚠CP934	ICP-N70-T	IC PROTECTOR	2.5A	
⚠CP936	ICP-N38-Y	IC PROTECTOR	1.5A	
⚠CP941	ICP-N70-T	IC PROTECTOR	2.5A	
⚠CP942	ICP-N70-T	IC PROTECTOR	2.5A	
⚠CP943	ICP-N20-Y	IC PROTECTOR	800mA	
⚠F905	QMFZ034-5R0Z-J1	FUSE	5A 125V	
⚠FR801	QRZ9011-1R0	FUSI RESISTOR	1Ω 1/2W J	
⚠FR802	QRZ9011-1R0	FUSI RESISTOR	1Ω 1/2W J	
⚠FR811	QRZ9011-4R7	FUSI RESISTOR	4.7Ω 1/2W J	
⚠FR915	QRZ9017-330	FUSI RESISTOR	33Ω 1/4W J	
H936	CM42862-00J-H	HEAT SINK ASSY		
K401	QQR0621-002Z	FERRITE BEADS		
K501	QQR1139-001	FERRITE BEADS		
K502	QQR1139-001	FERRITE BEADS		
K503	QQR1139-001	FERRITE BEADS		
K504	QQR1139-001	FERRITE BEADS		
K505	QQR1139-001	FERRITE BEADS		
K912	QQR0582-001Z	FERRITE BEADS		
K914	QQR0582-001Z	FERRITE BEADS		
K930	QQR0621-002Z	FERRITE BEADS		
K931	QQR0621-002Z	FERRITE BEADS		
K935	QQR0621-002Z	FERRITE BEADS		
K937	QQR0621-002Z	FERRITE BEADS		
K938	QQR0621-002Z	FERRITE BEADS		
⚠RY951	QSK0118-001	RELAY		
⚠RY952	QSK0083-001	RELAY		

R CRT SOCKET PW BOARD ASS'Y (SSB-3168A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
⚠IC3101	TDA6111Q	IC		
D3001	RM2C-LFA1	SI DIODE		
D3101	EU01N-T2	SI DIODE		
D3102	1SR124-400A-T2	SI DIODE		
C3002	QETN2EM-106Z	E CAPACITOR	10uF 250V M	
C3006	QFZ9027-472	MM CAPACITOR	4700pF 1000V K	
C3007	QETN2EM-106Z	E CAPACITOR	10uF 250V M	
C3101	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C3102	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3103	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C3106	QFK62EK-104Z	MM CAPACITOR	0.1uF 250V K	
C3107	NDC31HJ-561X	C CAPACITOR	560pF 50V J	
C3108	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
R3005	QRE121J-105Y	C RESISTOR	1MΩ 1/2W J	
R3006	QRC121K-102Z	COMP RESISTOR	1kΩ 1/2W K	
R3008	QRC121K-152Z	COMP RESISTOR	1.5kΩ 1/2W K	
R3101	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R3103	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R3104	QRL039J-473	OMF RESISTOR	47kΩ 3W J	
R3106	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3107	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3108	QRC121K-561Z	COMP RESISTOR	560Ω 1/2W K	
R3110	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L3002	QQL26AJ-102Z	COIL	1mH J	
CN30RE	QGZ5004C1-02	CONNECTOR	(1-2)	
CN3RGK	QGA2501C5-06Z	CONNECTOR	W-B (1-6)	
CN3RGN	QJB003-042624	SIN ID C-B WIRE		
CN3RSC	QGZ0017C1-01Z	CONNECTOR	(1-1)	
H3101	LC31150-002A	HEAT SINK/AL-F/		
SG3001	QAF0056-501Z	SURGE ABSORBER	500V M	
⚠SK3001	CE42535-001J1	C R T SOCKET		

G CRT SOCKET PW BOARD ASS'Y (SSB-3268A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
⚠IC3101	TDA6111Q	IC		
D3001	RM2C-LFA1	SI DIODE		
D3101	EU01N-T2	SI DIODE		
D3102	1SR124-400A-T2	SI DIODE		
C3001	QETN2EM-106Z	E CAPACITOR	10uF 250V M	
C3002	QETN2EM-106Z	E CAPACITOR	10uF 250V M	
C3003	QFLC1HJ-223Z	M CAPACITOR	0.022uF 50V J	
C3006	QFZ9027-472	MM CAPACITOR	4700pF 1000V K	
C3007	QETN2EM-106Z	E CAPACITOR	10uF 250V M	
C3101	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C3102	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3103	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C3105	NDC31HJ-120X	C CAPACITOR	12pF 50V J	
C3106	QFK62EK-104Z	MM CAPACITOR	0.1uF 250V K	
C3107	NDC31HJ-561X	C CAPACITOR	560pF 50V J	
C3108	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
R3001	NRSA63D-123X	MG RESISTOR	12kΩ 1/16W D	
R3002	NRSA63D-223X	MG RESISTOR	22kΩ 1/16W D	
R3003	NRSA63D-472X	MG RESISTOR	4.7kΩ 1/16W D	
R3005	QRE121J-105Y	C RESISTOR	1MΩ 1/2W J	
R3006	QRC121K-102Z	COMP RESISTOR	1kΩ 1/2W K	
R3008	QRC121K-152Z	COMP RESISTOR	1.5kΩ 1/2W K	
R3101	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R3102	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R3103	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R3104	QRL039J-473	OMF RESISTOR	47kΩ 3W J	
R3106	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3107	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R3108	QRC121K-561Z	COMP RESISTOR	560Ω 1/2W K	
R3110	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L3001	QQL26AJ-102Z	COIL	1mH J	
L3002	QQL26AJ-102Z	COIL	1mH J	
L3101	QQL244K-5R6Z	COIL	5.6uH K	
CN300A	QGA2501C5-04Z	CONNECTOR	W-B (1-4)	
CN300E	QGA2501C1-10	CONNECTOR	W-B (1-10)	
CN300V	QGA2501C5-03Z	CONNECTOR	W-B (1-3)	
CN30GE	QGZ5004C1-02	CONNECTOR	(1-2)	
CN3GBK	QGA2501C5-06Z	CONNECTOR	W-B (1-6)	
CN3GBN	QGA2501C5-04Z	CONNECTOR	W-B (1-4)	
CN3GSC	QGZ0017C1-01Z	CONNECTOR	(1-1)	
CN3RGK	QJB003-062211	SIN ID C-B WIRE		
CN3RGN	QGA2501C5-04Z	CONNECTOR	W-B (1-4)	
H3101	LC31150-002A	HEAT SINK/AL-F/		

⚠Ref No.	Part No.	Part Name	Description	Local
SG3001	QAF0056-501Z	SURGE ABSORBER	500V M	
⚠SK3001	CE42535-001J1	C R T SOCKET		

B CRT SOCKET PW BOARD ASS'Y (SSB-3368A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
⚠IC3101	TDA6111Q	IC		
Q3031	2SA1037AK/QR/-X	TRANSISTOR		
D3001	RM2C-LFA1	SI DIODE		
D3101	EU01N-T2	SI DIODE		
D3102	1SR124-400A-T2	SI DIODE		
D3103	MA111-X	SI DIODE		
C3002	QETN2EM-106Z	E CAPACITOR	10uF 250V M	
C3006	QFZ9027-472	MM CAPACITOR	4700pF 1000V K	
C3007	QETN2EM-106Z	E CAPACITOR	10uF 250V M	
C3101	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C3102	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3103	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C3105	NDC31HJ-270X	C CAPACITOR	27pF 50V J	
C3106	QFK62EK-104Z	MM CAPACITOR	0.1uF 250V K	
C3107	NDC31HJ-561X	C CAPACITOR	560pF 50V J	
C3108	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C3109	NDC31HJ-270X	C CAPACITOR	27pF 50V J	
R3005	QRE121J-105Y	C RESISTOR	1MΩ 1/2W J	
R3006	QRC121K-102Z	COMP RESISTOR	1kΩ 1/2W K	
R3008	QRC121K-152Z	COMP RESISTOR	1.5kΩ 1/2W K	
R3031	NRSA63D-123X	MG RESISTOR	12kΩ 1/16W D	
R3032	NRSA63D-562X	MG RESISTOR	5.6kΩ 1/16W D	
R3033	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R3101	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R3102	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R3103	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R3104	QRL039J-473	OMF RESISTOR	47kΩ 3W J	
R3105	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R3106	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R3107	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R3108	QRC121K-561Z	COMP RESISTOR	560Ω 1/2W K	
R3110	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
L3002	QQL26AJ-102Z	COIL	1mH J	
L3101	QQL244K-5R6Z	COIL	5.6uH K	
CN30BE	QGZ5004C1-02	CONNECTOR	(1-2)	
CN3BSC	QGZ0017C1-01Z	CONNECTOR	(1-1)	
CN3GBK	QJB003-062211	SIN ID C-B WIRE		
CN3GBN	QJB003-042624	SIN ID C-B WIRE		
H3101	LC31150-002A	HEAT SINK/AL-F/		
SG3001	QAF0056-501Z	SURGE ABSORBER	500V M	
⚠SK3001	CE42535-001J1	C R T SOCKET		

CONVERGENCE OUT PW BOARD ASS'Y (SSB-5068A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC801	L7805CP	IC		
IC803	L7805CP	IC		
IC804	STK392-110	IC		
IC805	STK392-110	IC		
Q801	2SC3852A	POW TRANSISTOR		
Q802	2SA673/C/-T	TRANSISTOR		
Q803	2SA673/C/-T	TRANSISTOR		
Q806	2SD601A/QR/-X	TRANSISTOR		
Q807	2SD601A/QR/-X	TRANSISTOR		
Q808	2SD601A/QR/-X	TRANSISTOR		
Q809	2SD601A/QR/-X	TRANSISTOR		
Q810	2SD601A/QR/-X	TRANSISTOR		
D804	1SR153-400-T2	FR DIODE		
D805	1SR153-400-T2	FR DIODE		
D816	RD33E/B2/-T2	Z DIODE		
D817	RD33E/B2/-T2	Z DIODE		
D818	RD33E/B2/-T2	Z DIODE		
D819	RD33E/B2/-T2	Z DIODE		
D820	RD33E/B2/-T2	Z DIODE		
D821	RD33E/B2/-T2	Z DIODE		
D822	RD33E/B2/-T2	Z DIODE		
D823	RD33E/B2/-T2	Z DIODE		
D824	RD33E/B2/-T2	Z DIODE		
D825	RD33E/B2/-T2	Z DIODE		
D826	RD33E/B2/-T2	Z DIODE		
D827	RD33E/B2/-T2	Z DIODE		
D828	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
D839	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
D841	PTZ6.8B-X	Z DIODE		
D842	PTZ6.8B-X	Z DIODE		
D843	PTZ6.8B-X	Z DIODE		
C801	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C802	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C803	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C804	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C805	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C806	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C807	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C808	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C809	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C810	QETN1EM-107Z	E CAPACITOR	100uF 25V M	
C812	NDC31HJ-181X	C CAPACITOR	180pF 50V J	
C813	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C814	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C818	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C819	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C820	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C821	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C822	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C823	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C824	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C825	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C827	QETN1HM-477Z	E CAPACITOR	470uF 50V M	
C828	QETN1HM-477Z	E CAPACITOR	470uF 50V M	
C829	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C830	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C831	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C832	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C833	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C834	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C838	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C843	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
R801	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R802	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R803	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R804	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R805	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R806	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R807	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R808	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R809	QRE121J-471Y	C RESISTOR	470Ω 1/2W J	
R810	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R812	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R813	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R818	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R828	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R829	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R830	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R831	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R832	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R833	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R834	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R835	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R836	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R837	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R838	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R839	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R840	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R842	QRX01GJ-2R2	MF RESISTOR	2.2Ω 1W J	
R843	QRL029J-221	OMF RESISTOR	220Ω 2W J	
R844	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R846	QRX01GJ-1R5	MF RESISTOR	1.5Ω 1W J	
R847	QRL029J-151	OMF RESISTOR	150Ω 2W J	
R848	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R850	QRX01GJ-2R2	MF RESISTOR	2.2Ω 1W J	
R851	QRL029J-221	OMF RESISTOR	220Ω 2W J	
R852	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R854	QRX01GJ-1R5	MF RESISTOR	1.5Ω 1W J	
R855	QRL029J-151	OMF RESISTOR	150Ω 2W J	
R856	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R858	QRX01GJ-3R3	MF RESISTOR	3.3Ω 1W J	
R859	QRL029J-221	OMF RESISTOR	220Ω 2W J	
R860	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R862	QRX01GJ-1R8	MF RESISTOR	1.8Ω 1W J	
R863	QRL029J-151	OMF RESISTOR	150Ω 2W J	
R864	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	

⚠Ref No.	Part No.	Part Name	Description	Local
R866	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R867	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
L802	QQL521J-470	COIL	47uH J	
CN011	QGB2501J1-15	CONNECTOR	B-B (1-15)	
CN012	QGB2501J1-15	CONNECTOR	B-B (1-15)	
K801	QQR0621-002Z	FERRITE BEADS		
K802	QQR0621-002Z	FERRITE BEADS		
K803	QQR0621-002Z	FERRITE BEADS		
K804	QQR0621-002Z	FERRITE BEADS		
K805	QQR0621-002Z	FERRITE BEADS		
K806	QQR0621-002Z	FERRITE BEADS		
K807	QQR0621-002Z	FERRITE BEADS		
K808	QQR0621-002Z	FERRITE BEADS		
K809	QQR0621-002Z	FERRITE BEADS		
K810	QQR0621-002Z	FERRITE BEADS		
K811	QQR0621-002Z	FERRITE BEADS		

VM PW BOARD ASS'Y (SSB-7268A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
Q7101	2SD601A/QR/-X	TRANSISTOR		
Q7102	2SC1627A/OY/-T	TRANSISTOR		
Q7105	2SA1837	POW TRANSISTOR		
Q7106	2SC4793	POW TRANSISTOR		
D7101	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
D7102	RH1S-T3	SI DIODE		
D7103	RH1S-T3	SI DIODE		
C7001	QETN2CM-106Z	E CAPACITOR	10uF 160V M	
C7101	QCB31HK-103Z	C CAPACITOR	0.01uF 50V K	
C7102	NDC31HJ-821X	C CAPACITOR	820pF 50V J	
C7103	QETN1HM-335Z	E CAPACITOR	3.3uF 50V M	
C7105	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C7112	QCB32HK-472Z	C CAPACITOR	4700pF 500V K	
C7113	QCB32HK-472Z	C CAPACITOR	4700pF 500V K	
C7114	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C7115	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C7116	QETN1AM-337Z	E CAPACITOR	330uF 10V M	
C7117	QETN2CM-106Z	E CAPACITOR	10uF 160V M	
R7101	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R7102	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R7103	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R7104	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J	
R7105	NRSA63J-820X	MG RESISTOR	82Ω 1/16W J	
R7106	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R7107	QRG01GJ-101	OMF RESISTOR	100Ω 1W J	
R7112	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R7113	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R7114	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R7115	QRE121J-563Y	C RESISTOR	56kΩ 1/2W J	
R7116	QRE121J-563Y	C RESISTOR	56kΩ 1/2W J	
R7117	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R7118	NRSA63J-390X	MG RESISTOR	39Ω 1/16W J	
R7119	QRE121J-2R7Y	C RESISTOR	2.7Ω 1/2W J	
R7120	QRE121J-2R7Y	C RESISTOR	2.7Ω 1/2W J	
R7121	NRSA63J-390X	MG RESISTOR	39Ω 1/16W J	
R7122	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J	
R7123	QRL029J-681	OMF RESISTOR	680Ω 2W J	
CN700V	QJB003-031413	SIN ID C-B WIRE		
CN70VB	QGA2501C5-03Z	CONNECTOR	W-B (1-3)	
CN70VG	QGA2501C5-03Z	CONNECTOR	W-B (1-3)	
CN70VR	QGA2501C5-03Z	CONNECTOR	W-B (1-3)	
⚠FR7001	QRZ9021-561	FUSI RESISTOR	560Ω 1W J	
K7101	CE41492-001Z	CHOKE COIL		
K7103	CE41492-001Z	CHOKE COIL		
K7104	CE41492-001Z	CHOKE COIL		
Y7101	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y7102	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

REMOCON SENSOR PW BOARD ASS'Y (SSB-8068A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC8001	GP1U281Q	IR DETECT UNIT	38kHz	
D8001	MA3068/M/-X	Z DIODE		
C8001	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C8002	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
R8001	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R8003	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R8004	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	

LINE FILTER PW BOARD ASS'Y (SSB-9068A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
D9911	1SR35-400A-T2	SI DIODE		
D9912	1SR35-400A-T2	SI DIODE		
D9913	1SR35-400A-T2	SI DIODE		
D9914	1SR35-400A-T2	SI DIODE		
D9921	1SR35-400A-T2	SI DIODE		
⚠C9901	QFZ9072-104	MM CAPACITOR	0.1uF AC250V K	
⚠C9902	QFZ9072-104	MM CAPACITOR	0.1uF AC250V K	
⚠C9903	QFZ9072-104	MM CAPACITOR	0.1uF AC250V K	
C9911	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	
C9921	QETM1HM-108	E CAPACITOR	1000uF 50V M	
⚠R9901	QRZ9041-275	C RESISTOR	2.7MΩ 1/2W K	
R9911	QRE121J-5R6Y	C RESISTOR	5.6Ω 1/2W J	
⚠T9911	QQT0382-001	POWER TRANSF		
⚠F9901	QMF61U1-7R0-S	FUSE	7A AC125V	
⚠LF9901	QQR0972-002	LINE FILTER		
⚠LF9902	QQR0972-002	LINE FILTER		
⚠LF9903	QQR1281-001	LINE FILTER		
⚠VA9901	ERZV10V621CS	ZNR		

DEF OSC PW BOARD ASS'Y (SSB0H068A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC101	LA7860M-X	IC		
IC102	BA12FP-X	IC		
IC161	AN5441SA-W	IC		
IC162	BA10393F-XE	IC		
IC212	CXA1875AM-X	IC		
Q101	2SD601A/QR/-X	TRANSISTOR		
Q102	2SD601A/QR/-X	TRANSISTOR		
Q131	2SD601A/QR/-X	TRANSISTOR		
Q132	2SD601A/QR/-X	TRANSISTOR		
Q162	2SD601A/QR/-X	TRANSISTOR		
Q167	2SD601A/QR/-X	TRANSISTOR		
Q168	2SD601A/QR/-X	TRANSISTOR		
Q751	2SD601A/QR/-X	TRANSISTOR		
Q752	2SD601A/QR/-X	TRANSISTOR		
Q753	2SC4632	POW TRANSISTOR		
D164	1SS355-X	SI DIODE		
D165	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
D221	1SS355-X	SI DIODE		
D321	1SS355-X	SI DIODE		
D751	ES1F-LFG2	SI DIODE		
D752	ES1F-LFG2	SI DIODE		
C102	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C103	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C104	NDC31HJ-561X	C CAPACITOR	560pF 50V J	
C106	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C107	NDC21HJ-122X	C CAPACITOR	1200pF 50V J	
C108	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C109	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C110	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C111	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C112	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C113	NDC21HJ-122X	C CAPACITOR	1200pF 50V J	
C114	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C115	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C116	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	

⚠Ref No.	Part No.	Part Name	Description	Local
C117	QTMN1CM-477Z	E CAPACITOR	470uF 16V M	
C118	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C119	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C120	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C121	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C122	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C123	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C124	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C131	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C132	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C133	NCB21EK-124X	C CAPACITOR	0.12uF 25V K	
C134	NCB31EK-273X	C CAPACITOR	0.027uF 25V K	
C135	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C136	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C137	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C138	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C161	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	
C162	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C163	QETN1AM-477Z	E CAPACITOR	470uF 10V M	
C164	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C182	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C212	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C221	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C321	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C751	QFLC1HJ-563Z	M CAPACITOR	0.056uF 50V J	
C752	QETN1VM-476Z	E CAPACITOR	47uF 35V M	
C753	QFZ0200-153	MPP CAPACITOR	0.015uF 1.5kV H	
C761	QFZ0122-682	MPP CAPACITOR	6800pF 1.8kV H	
C762	QCZ0122-471	C CAPACITOR	470pF 2kV K	
C763	QCZ0122-471	C CAPACITOR	470pF 2kV K	
C0165	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C0166	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C0167	NCB31HK-332X	C CAPACITOR	3300pF 50V K	
C0168	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C0169	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C0170	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C0171	QFV21HJ-184AZ	MF CAPACITOR	1.84F 50V J	
C0172	QFV21HJ-394AZ	MF CAPACITOR	3.94F 50V J	
C0173	NCB31HK-153X	C CAPACITOR	0.015uF 50V K	
C0174	NCB31HK-272X	C CAPACITOR	2700pF 50V K	
C0175	NCB31HK-152X	C CAPACITOR	1500pF 50V K	
C0176	QFV21HJ-184AZ	MF CAPACITOR	1.84F 50V J	
C0178	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C0179	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C0180	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C0181	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
R101	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R103	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R104	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R105	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R106	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R107	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R109	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R110	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R111	NRSA63D-153X	MG RESISTOR	15kΩ 1/16W D	
R112	NRSA63D-182X	MG RESISTOR	1.8kΩ 1/16W D	
R113	NRSA63D-123X	MG RESISTOR	12kΩ 1/16W D	
R114	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R116	NRSA63D-182X	MG RESISTOR	1.8kΩ 1/16W D	
R117	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R120	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R121	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R122	QRG01GJ-470	OMF RESISTOR	47Ω 1W J	
R123	QRK126J-101X	UNF C RESISTOR	100Ω 1/2W J	
R126	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R127	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R129	NRSA63D-183X	MG RESISTOR	18kΩ 1/16W D	
R131	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R133	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R134	NRSA63J-334X	MG RESISTOR	330kΩ 1/16W J	
R137	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R139	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R140	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R141	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R142	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R143	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R161	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R162	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R163	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R164	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R167	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R168	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R169	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R170	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R171	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R172	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R174	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R175	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R176	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R177	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R178	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R179	NRVA63D-562X	CMF RESISTOR	5.6kΩ 1/16W D	
R180	NRSA63D-152X	MG RESISTOR	1.5kΩ 1/16W D	
R182	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R183	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R184	NRSA63D-473X	MG RESISTOR	47kΩ 1/16W D	
R185	NRSA63D-103X	MG RESISTOR	10kΩ 1/16W D	
R186	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R187	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R188	NRSA63D-101X	MG RESISTOR	100Ω 1/16W D	
R189	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R190	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J	
R216	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R217	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R223	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R224	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R226	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R227	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R230	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R321	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R326	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R327	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R328	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R329	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R330	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R751	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R752	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R753	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R754	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R755	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R756	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R757	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R761	QRE121J-184Y	C RESISTOR	180kΩ 1/2W J	
R762	QRE121J-184Y	C RESISTOR	180kΩ 1/2W J	
R763	QRE121J-184Y	C RESISTOR	180kΩ 1/2W J	
R764	QRE121J-184Y	C RESISTOR	180kΩ 1/2W J	
R765	QRE121J-184Y	C RESISTOR	180kΩ 1/2W J	
L101	QQL01BK-470Z	P COIL	47uH K	
L103	NQL092K-100X	P COIL	10uH K	
L104	NQL092K-100X	P COIL	10uH K	
L105	QQL01BK-101Z	P COIL	100uH K	
CN010	QGB1505K1-35	CONNECTOR	B-B (1-35)	
W001	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W002	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W003	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W004	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W005	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W006	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W007	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W008	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W009	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W010	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W012	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W013	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W014	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W015	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W016	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W017	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W018	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W019	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W020	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W021	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W022	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W023	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W024	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y001	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y002	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y003	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y004	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y007	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y008	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

RECEIVER PW BOARD ASS'Y (SSB0R368A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC0201	CXA2134Q-X	IC		
IC0501	BA4558F-X	IC		
IC0531	BA4558F-X	IC		
IC0561	TC4066BP/N/	IC(DIGITAL)		
IC0701	M62320FP-X	IC		
Q0101	2SD601A/QR/-X	TRANSISTOR		
Q0531	2SD601A/QR/-X	TRANSISTOR		
Q0532	2SB709A/QR/-X	TRANSISTOR		
Q0561	2SB709A/QR/-X	TRANSISTOR		
Q0562	2SD601A/QR/-X	TRANSISTOR		
Q0563	2SB709A/QR/-X	TRANSISTOR		
Q0564	2SD601A/QR/-X	TRANSISTOR		
Q0565	DTC124EKA-X	DIGI TRANSISTOR		
Q0566	DTC124EKA-X	DIGI TRANSISTOR		
Q0601	2SC3311A/QR/-T	TRANSISTOR		
Q0602	2SC3311A/QR/-T	TRANSISTOR		
Q0701	2SD601A/QR/-X	TRANSISTOR		
Q0702	2SB709A/QR/-X	TRANSISTOR		
D0201	UDZS8.2B-X	Z DIODE		
D0202	UDZS8.2B-X	Z DIODE		
D0531	UDZS10B-X	Z DIODE		
D0561	UDZS10B-X	Z DIODE		
D0562	UDZS10B-X	Z DIODE		
D0563	1SS355-X	SI DIODE		
D0601	1SS355-X	SI DIODE		
D0602	1SS355-X	SI DIODE		
D0701	1SS355-X	SI DIODE		
C0102	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C0103	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C0201	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C0202	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C0203	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C0204	NCB31HK-562X	C CAPACITOR	5600pF 50V K	
C0205	NCB31HK-123X	C CAPACITOR	0.012uF 50V K	
C0206	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C0207	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C0208	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C0209	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C0210	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C0211	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C0212	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
C0213	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C0214	NCB31HK-272X	C CAPACITOR	2700pF 50V K	
C0215	NCB31HK-473X	C CAPACITOR	0.047uF 50V K	
C0216	QETN1HM-335Z	E CAPACITOR	3.3uF 50V M	
C0217	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C0218	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C0219	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C0220	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C0221	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C0222	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C0223	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C0224	NCB31HK-223X	C CAPACITOR	0.022uF 50V K	
C0225	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0226	QENC1HM-475Z	BP E CAPACITOR	4.7uF 50V M	
C0227	NCB31EK-104X	C CAPACITOR	0.1uF 25V K	
C0228	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0501	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C0502	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C0503	QENC1HM-105Z	BP E CAPACITOR	1uF 50V M	
C0504	QENC1HM-105Z	BP E CAPACITOR	1uF 50V M	
C0531	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C0532	NCB31EK-393X	C CAPACITOR	0.039uF 25V K	
C0533	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C0534	NCB31HK-183X	C CAPACITOR	0.018uF 50V K	
C0535	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C0536	QENC1HM-106Z	BP E CAPACITOR	10uF 50V M	
C0537	QENC1HM-106Z	BP E CAPACITOR	10uF 50V M	
C0561	QETN1HM-474Z	E CAPACITOR	0.47uF 50V M	
C0562	QETN1HM-474Z	E CAPACITOR	0.47uF 50V M	
C0563	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C0601	QEZ0206-335Z	BP E CAPACITOR	3.3uF 50V M	
C0602	QEZ0206-335Z	BP E CAPACITOR	3.3uF 50V M	
C0701	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C0702	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C0703	NDC31HJ-820X	C CAPACITOR	82pF 50V J	
C0704	NDC31HJ-820X	C CAPACITOR	82pF 50V J	
R0102	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0106	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0107	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0108	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0109	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R0110	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0111	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0112	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R0113	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0114	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0201	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R0202	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R0203	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R0204	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R0205	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R0206	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R0208	NRSA63F-623X	MG RESISTOR	62kΩ 1/16W F	
R0209	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R0210	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R0211	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R0213	NRSA63J-302X	MG RESISTOR	3kΩ 1/16W J	
R0214	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R0501	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R0502	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R0503	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R0504	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R0505	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R0506	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0507	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R0508	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0531	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R0532	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R0533	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R0534	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R0535	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R0536	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0537	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0538	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0539	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0540	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R0541	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R0542	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0543	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0544	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0561	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R0562	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R0563	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R0564	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J	
R0565	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R0566	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R0567	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0568	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R0569	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0570	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R0573	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R0574	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R0575	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R0577	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0579	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0580	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R0601	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R0602	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R0603	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R0604	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R0605	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0606	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0608	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0609	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0701	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R0702	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R0703	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R0704	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0705	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0706	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R0707	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0708	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R0709	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R0710	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R0711	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
L0102	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J	
CN0005	QGB1505K1-15	CONNECTOR	B-B (1-15)	
CN0006	QGB1505K1-35	CONNECTOR	B-B (1-35)	
CN000M	QJB003-042834	SIN ID C-B WIRE		
J0501	QNN0550-001	PIN JACK	VARI/FIX OUT	
J0601	CEMT019-001	SP TERMINAL	SUB WOOFER OUT	
RY0601	QSK0133-001	RELAY		
RY0602	QSK0133-001	RELAY		
⚠TU0102	QAU0303-001	TUNER	SUB	
UD0102	QAU0283-001	RF SPLITTER	75Ω 44MHz-872MHz	

⚠Ref No.	Part No.	Part Name	Description	Local
Y0001	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y0002	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

FRONT CONTROL PW BOARD ASS'Y (SSB0L068A-M2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC0702	MM1437AF-X	IC		
Q0701	2SC2412K/QR/-X	TRANSISTOR		
Q0702	2SC2412K/QR/-X	TRANSISTOR		
D0402	UDZS10B-X	Z DIODE		
D0403	UDZS10B-X	Z DIODE		
D0404	UDZS10B-X	Z DIODE		
D0405	UDZS10B-X	Z DIODE		
D0406	UDZS10B-X	Z DIODE		
D0701	SELU5E20C	LED		
D0735	UDZS10B-X	Z DIODE		
C0442	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C0443	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C0444	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C0445	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C0446	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V J	
C0711	QETN1CM-336Z	E CAPACITOR	33uF 16V M	
C0712	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C0713	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
R0401	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0402	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R0403	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R0404	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0405	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0406	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0411	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0412	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0413	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0414	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0415	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0416	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0417	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0418	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0419	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0420	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0702	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0703	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0706	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R0707	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R0708	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R0711	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R0712	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R0732	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R0748	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R0749	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R0750	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R0751	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
J0401	QNZ0438-001	AV JACK	S VIDEO	
S0701	QSW0619-003Z	TACT SWITCH	POWER	
S0702	QSW0619-003Z	TACT SWITCH	MENU	
S0703	QSW0619-003Z	TACT SWITCH	CH -	
S0704	QSW0619-003Z	TACT SWITCH	CH +	
S0705	QSW0619-003Z	TACT SWITCH	VOL -	
S0706	QSW0619-003Z	TACT SWITCH	VOL +	
S0707	QSW0619-003Z	TACT SWITCH	POWER	
W0010	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0011	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0012	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0013	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0014	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0015	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0016	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0017	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0018	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0019	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0020	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0021	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0022	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0023	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0024	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0025	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0026	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0026	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0027	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0028	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0029	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0030	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0031	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0032	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0033	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0034	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0035	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
W0036	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y0401	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y0402	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y0410	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
Y0411	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	

FRONT RELAY PW BOARD ASS'Y (SSB0L268A-M2)

⚠	Ref.No.	Part No.	Part Name	Description	Local
	CN000G	QGF1201C2-17	CONNECTOR	FFC/FPC (1-17)	
	CN000H	QGF1201C2-13	CONNECTOR	FFC/FPC (1-13)	

DIGITAL INPUT MODULE PW BOARD ASS'Y (48WP74CP-S) [AV-48WP74]
(56WP74CP-S) [AV-56WP74]

⚠	Ref.No.	Part No.	Part Name	Description	Local
		48WP74CP-S	DIGITAL INPUT MODULE PWB		AV-48WP74
		56WP74CP-S	DIGITAL INPUT MODULE PWB		AV-56WP74

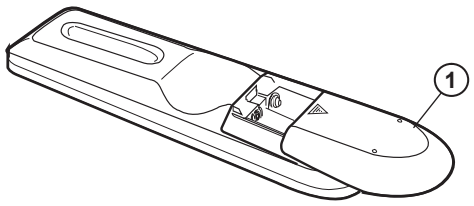
DIGITAL CONVERGENCE MODULE PW BOARD ASS'Y (SSB0K070A-M2) [AV-48WP74]
(SSB0K069A-M2) [AV-56WP74]

⚠	Ref.No.	Part No.	Part Name	Description	Local
		SSB0K069A-M2	DIGITAL CONVERGENCE MODULE PWB		AV-48WP74
		SSB0K070A-M2	DIGITAL CONVERGENCE MODULE PWB		AV-56WP74

MI-COM & DIST MODULE PW BOARD ASS'Y (SSB0D070A-M2) [AV-48WP74]
(SSB0D069A-M2) [AV-56WP74]

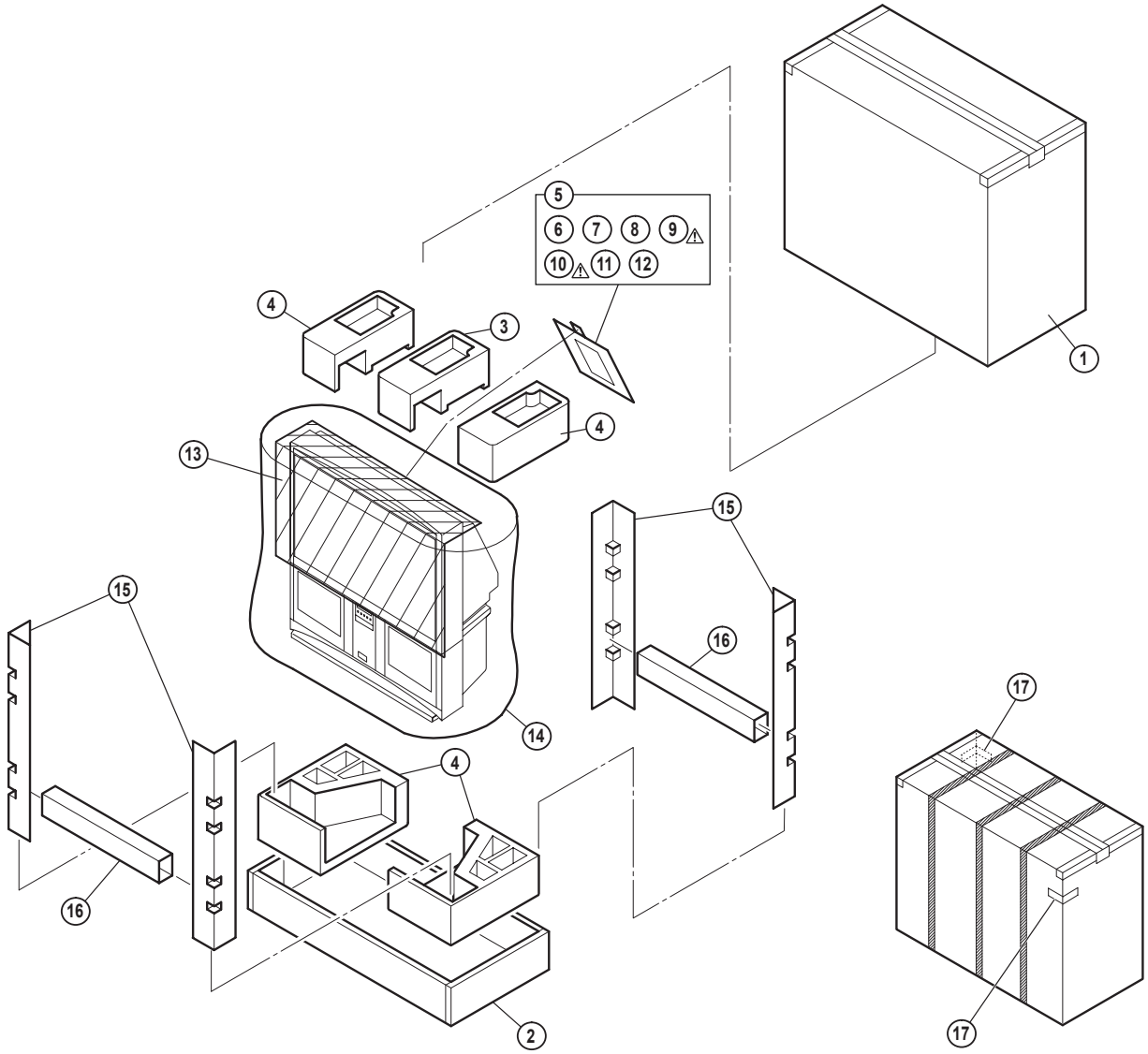
⚠	Ref.No.	Part No.	Part Name	Description	Local
		SSB0D069A-M2	MI-COM & DIST MODULE PWB		AV-48WP74
		SSB0D070A-M2	MI-COM & DIST MODULE PWB		AV-56WP74

REMOTE CONTROL UNIT PARTS LIST (RM-C1200G-1H)



⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	UR77EC1403A	BATTERY COVER		

PACKING



PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	LC11252-004A-A	PACKING CASE		AV-48WP74
	1	LC11252-005A-A	PACKING CASE		AV-56WP74
	2	LC31759-001B-A	BOTTOM CASE		AV-48WP74
	2	LC31759-002A-A	BOTTOM CASE		AV-56WP74
	3	GQ10057-001A-A	TOP CUSHION		AV-48WP74
	3	GQ10054-001A-A	TOP CUSHION		AV-56WP74
	4	LC11254-002B-A	CUSHION ASSY	4pcs in 1set	AV-48WP74
	4	LC11410-002B-A	CUSHION ASSY	4pcs in 1set	AV-56WP74
	5	QPA02503505	POLY BAG	25cm x 35cm	
	6	GQ40028-001A-A	INSERT SHEET		
	7	----------	BATTERY	AA(x2)	
	8	RM-C1200G-1H	REMOCON UNIT		
⚠	9	LCT1282-001A-A	INST BOOK	English	
⚠	10	LCT1283-001A-A	INST BOOK	French	
	11	BT-51028-2Q	REGISTRATION CARD		
	12	BT-52006-1Q	WARRANTY CARD		
	13	CP30055-007-A	TOP COVER		
	14	CP30056-010-A	POLY BAG		AV-48WP74
	14	CP30056-011-A	POLY BAG		AV-56WP74
	15	LC31761-001B-A	PAD	(x4)	AV-48WP74
	15	LC31956-001B-A	PAD	(x4)	AV-56WP74
	16	LC32083-001B-A	PROTECT PAD	(x2)	AV-56WP74
	17	GQ30037-001A-A	CORNER LABEL	2pcs in 1set	